

## Storm Data and Unusual Weather Phenomena - January 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WISCONSIN, Southeast</b>				
(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z058) DODGE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z070) WALWORTH, (WI-Z072) KENOSHA				
	01/01/11 08:00 CST		38K	Strong Wind (MAX 43 kt)
	01/01/11 14:00 CST		0	
<p>Deep low pressure of 993 mb crossed Lake Superior into southeast Ontario, taking a cold front across southern Wisconsin. A combination of a tight pressure gradient around the low, with 3-hourly pressure rises of 2 to 3 mb, and clearing skies behind the front during the day, allowed for deep boundary layer mixing. This mixing tapped 30-40 knot (35 to 46 mph) winds just off the surface, which produced strong and gusty southwest winds. Sustained wind speeds reached 30 to 35 mph, with gusts between 35 and 45 mph during the morning and into the early afternoon hours. Scattered power outages were noted in newspapers due to wind-broken tree branches impacting power lines.</p>				
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUCKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	01/17/11 06:00 CST		0	Winter Weather
	01/17/11 23:00 CST		0	
<p>Low pressure, driven by a vorticity maximum that moved across central and southern sections of Wisconsin, tracked across northern Illinois. Snow began falling early in the morning of the 17th with warm air advection ahead of the system, and continued through the day as the system moved through. Snow totals of 3 to 6 inches were widespread across South Central and Southeast Wisconsin, with a few locations receiving more than 6 inches of snow over the nearly 18-hour event. Winds of 10 to 20 mph, with gusts to 30 mph, reduced visibilities with blowing and drifting snow. Numerous accidents were reported across southern Wisconsin. A semi-trailer truck slid off the Interstate 90-94 bridge over Mirror Lake, killing (indirectly-related) the driver and critically injuring (indirectly-related) a passenger. The accident closed westbound lanes of the interstate for a time, with traffic reduced to one lane for days afterward until authorities could examine damage to the bridge and deem it safe for regular traffic flow.</p>				
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUCKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	01/21/11 00:00 CST		0	Cold/Wind Chill
	01/21/11 10:00 CST		0	
<p>An arctic air mass spread over southern Wisconsin in the wake of a cold front. Low temperatures dropped into the teens below zero to near 20 below zero away from Lake Michigan, with single digits below zero along the lake. The cold temperatures combined with northwest winds of 10 to 15 mph to produce wind chill values between 20 below and 30 below zero.</p>				

## Storm Data and Unusual Weather Phenomena - February 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

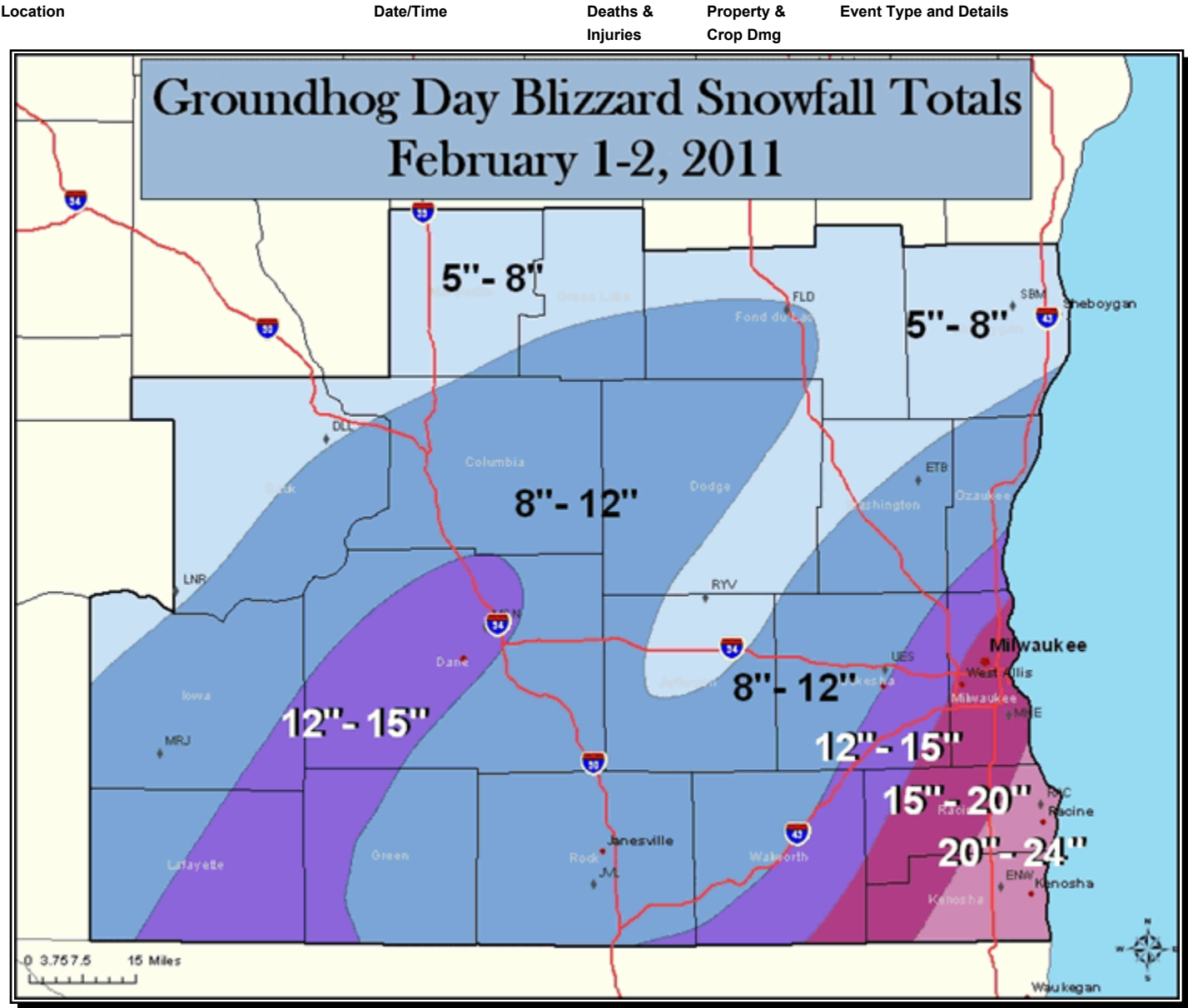
### WISCONSIN, Southeast

(WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK

02/01/11 17:00 CST	0	Blizzard
02/02/11 05:00 CST	0	

A powerful low pressure center, passing south of Wisconsin, produced blizzard conditions across much of southern Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the evening. Very strong winds were associated with this storm for an extended period of time. Sustained winds of 30 to 40 mph were common through the event, with peak wind gusts between 45 and 55 mph. The combination of high winds and heavy snow created whiteout conditions with visibilities falling to near zero. Twenty-four hour snowfall totals were between 14 and 15 inches. In addition to the blizzard, several inches of snow fell on Jan 31. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of February 2nd. Many cooperative observer stations set records for multi-day snowfall totals. Beloit tied a record with a one-day (2/1) snowfall of 15 inches, is tied for second place with two-day (1/31-2/1) total of 17.0 inches and tied for fifth with a three-day (1/31-2/2) snowfall of 17.0 inches. Snow drifts of 3 to 8 feet were common, with reports of some drifts reaching 12 to 15 feet in open rural areas. Many area school districts dismissed classes early on February 1st, and remained closed on the 2nd and 3rd. A Civil Danger Warning was issued by Wisconsin Emergency Management concerning the dangerous driving conditions. Interstate 43 from Beloit to Mukwonago was closed, as well as portions of Interstate 90, with many stranded motorists having to be rescued from vehicles buried in the drifting snow. About 100 National Guardsman were mobilized statewide in response to Gov. Scott Walker's emergency declaration for 29 counties to help rescue motorists and run emergency shelters at armories. Rock County sheriff deputies had to abandoned their squad cars and jump into National Guard Humvees and Army trucks, which also got stuck in the deep drifts. Wisconsin DNR snowmobiles also became stuck in the deep snow. A 66-year old Janesville man was hospitalized for hypothermia after he fell and was subsequently buried by snow from a snow plow before being found by a neighbor a dug out of the snow bank 4 hours later. The blizzard conditions prevented firefighters from reaching a house fire in Gratiot (Lafayette County) until conditions improved enough for a plow to clear the road. The house was a total loss. Alliant energy reported 7,263 customers in the Milton-Edgerton area were without power at the height of the storm.

Storm Data and Unusual Weather Phenomena - February 2011



MXK CWA 24-Hour Snowfall Totals from 12AM February 1st to 12 AM February 2nd

(WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	02/01/11 17:00 CST	1	20K	Blizzard
	02/02/11 07:00 CST		0	

Direct Fatalities: F52OU

A powerful low pressure center, passing south of Wisconsin, produced blizzard conditions across much of southern Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the evening. Very strong winds were associated with this storm for an extended period of time. Sustained northeast winds of 30 to 40 mph were common through the event, with peak wind gusts between 45 and 65 mph, with the stronger wind gusts near Lake Michigan. The lakeshore observation site at Kenosha reported a 64 mph wind gust at 120 am CST on February 2nd. The canopy over gas pumps at a gas station in the City of Kenosha was damaged by the high winds. The combination of high winds and heavy snow created widespread sustained visibilities of less than 1/4 mile, with frequent whiteout conditions and near zero visibilities. Twenty-four hour snowfall totals were between 20 and 26 inches, with 26 inches of snow measured in Pell Lake, and 24 inches recorded at both the Racine Wastewater Treatment Plant, a one-day record, and by a cooperative observer 4 miles southwest of the city of Kenosha. In addition to the snow that fell during the blizzard, several inches of snow fell on Jan 31, with light lake effect snow through the day on Feb 1st. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of

## Storm Data and Unusual Weather Phenomena - February 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

February 2nd. Racine set new two-day (1/31-2/1) and three-day (1/31-2/2) record snowfalls with 26 inches for each period, and Kenosha also set new two-day (1/31-2/1) and three-day (1/31-2/2) record snowfalls with 25.3 inches and 27.3 inches respectively. Snow drifts of 4 to 12 feet were common, with reports of some drifts reaching up to 15 feet in open rural areas. A Civil Danger Warning was issued by Wisconsin Emergency Management concerning the dangerous driving conditions. Drifting snow closed Interstate 94 from the Illinois border north to Milwaukee and Interstate 43 from Beloit to Mukwonago with many stranded motorists having to be rescued from vehicles buried in the drifting snow. Several Kenosha County sheriff deputies had to be rescued from their squad cars on I-94 after being stranded for six and seven hours. About 100 National Guardsman were mobilized statewide in response to Gov. Scott Walker's emergency declaration for 29 counties to help rescue motorists and run emergency shelters at armories. The Racine Fire Department alone responded to 150 emergency calls related to the storm. Emergency rooms across Southeast Wisconsin reported dozens of heart attacks and injuries from snow blower accidents. A 52-year old Yorkville (Racine County) woman died from exposure after being dropped off by a tow truck driver at the foot of her driveway and became disoriented in the whiteout conditions. Her body was found 300 feet from her home. At the height of the storm, WE Energies reported 5,200 customers were without power across Southeast Wisconsin. An estimated \$1.4 million dollars was spent for snow removal in Racine County alone. Trucks dumped snow that had been cleared from area streets at Pershing Park, with snow piles reaching 60-70 feet high.

---

(WI-Z057) COLUMBIA, (WI-Z062) IOWA, (WI-Z063) DANE

02/01/11 19:00 CST	10K	Blizzard
02/02/11 04:00 CST	0	

A powerful low pressure center, passing south of Wisconsin, produced blizzard conditions across much of southern Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the evening. Very strong winds were associated with this storm for an extended period of time. Sustained winds of 30 to 40 mph were common through the event, with peak wind gusts between 45 and 50 mph. The combination of high winds and heavy snow created widespread sustained visibilities of less than 1/4 mile, with frequent whiteout conditions and near zero visibilities. Twenty-four hour snowfall totals were between 12 and 14 inches, with 14.5 inches of snow measured in Middleton, 12.7 inches recorded at Dane County Regional Airport, 12.2 inches in Portage and 12 inches in Mineral Point. In addition to the snow that fell during the blizzard, several inches of snow fell on Jan 31. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of February 2nd. Many cooperative observer stations set records for multi-day snowfall totals. Stoughton tied a record with a one-day (2/1) snowfall of 14 inches, and set new two-day (1/31-2/1) and three-day (1/31-2/2) record snowfalls with 19.1 inches for each period. Snow drifts of 3 to 6 feet were common, with reports of some drifts reaching 12 to 15 feet in open rural areas. Drifting snow closed county roads, with many stranded motorists having to be rescued from vehicles buried in the drifting snow. About 100 National Guardsman were mobilized statewide in response to Gov. Scott Walker's emergency declaration for 29 counties to help rescue motorists and run emergency shelters at armories. The blizzard led to early dismissals on February 1st at many area schools, and kept them closed through February 3rd. Snow drifted up to the roof of the Yahara Elementary School in De Forest (Dane County). The strong, gusty winds sheared off the sign at a Super 8 motel in Columbus in Columbia County.

---

(WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE

02/01/11 19:00 CST	34K	Blizzard
02/02/11 07:00 CST	0	

A powerful low pressure center, passing south of Wisconsin, produced blizzard conditions across much of southern Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the late afternoon and evening. Very strong winds were associated with this storm for an extended period of time. Sustained northeast winds of 30 to 40 mph were common through the event, with peak wind gusts between 45 and 55 mph, with the stronger wind gusts near Lake Michigan. The lakeshore observation site at Milwaukee reported a 54 mph wind gust at 7 pm CST on February 1st. The combination of high winds and heavy snow created widespread sustained visibilities of less than 1/4 mile, with frequent whiteout conditions and near zero visibilities. Twenty-four hour snowfall totals were between 12 and 22 inches, with 22 inches of snow measured in Hales Corners (Milwaukee County), 18 inches recorded 4 miles southwest of Muskego (Waukesha County) and 12.1 inches at the NWS office in Sullivan (Jefferson County). Snowfall totaled 16.1 inches at Mitchell International Airport, which tied for the 5th greatest 24-hour snowfall total in Milwaukee. Most flights in and out of the airport were canceled until later in the day on February 2nd. In addition to the snow that fell during the blizzard, several inches of snow fell on Jan 31, with light lake effect snow through the day on Feb 1st. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of February 2nd. Many cooperative observer stations set records for multi-day snowfall totals. Whitnall Park in Hales Corners (Milwaukee County) set a record with 28 inches of snow from January 31st through February 1st. Snow drifts of 3 to 12 feet were common, with reports of some drifts reaching 12 to 15 feet in open rural areas. A Civil Danger Warning was issued by Wisconsin Emergency Management concerning the dangerous driving conditions. Drifting snow closed Interstate 94 from the Illinois border north to Milwaukee, and Interstate 43 from Beloit to Mukwonago, with many stranded motorists having to be rescued from vehicles buried in the drifting snow. About 100 National Guardsman were mobilized statewide in response to Gov. Scott Walker's emergency declaration for 29 counties to help rescue motorists and run emergency shelters at armories. Most businesses, several restaurants and all of the Milwaukee-area shopping malls were closed for at least part of the day on February 2nd. The blizzard even caused the Milwaukee County Zoo to cancel the annual Groundhog Day festivities. Emergency rooms across Southeast Wisconsin reported dozens of heart attacks and injuries from snow blower accidents. Three Milwaukee area men, two with heart problems, died while shoveling snow.

## Storm Data and Unusual Weather Phenomena - February 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

Milwaukee area law enforcement reported 24 vehicle accidents, with two injuries and 47 disabled vehicles. Jefferson County reported 1 indirectly-related injury due to a vehicle accident, with a total of 122 weather related calls. At the height of the storm, WE Energies reported 5,200 customers were without power across Southeast Wisconsin. An outdoor siren belonging to the city of Waukesha was blown down by the winds and had to be replaced. In the Port of Milwaukee, the wind gusts imploded at least 5 metal panels or siding and a roll-down door on a large storage pole shed.

---

(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z056) SAUK

02/01/11 21:00 CST	0	Winter Storm
02/02/11 03:00 CST	0	

A powerful low pressure center, passing south of Wisconsin, produced near blizzard conditions across portions of South Central Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the late afternoon and evening. Very strong winds were associated with this storm for an extended period of time. Sustained northeast winds of 25 to 30 mph were common through the event, with occasional gusts between 40 and 45 mph. The combination of gusty winds and heavy snow created widespread visibilities of a mile or less, with law enforcement reporting near-blizzard conditions at times. Twenty-four hour snowfall totals were between 4 and 8 inches, with 8 inches of snow measured by a cooperative observer 1 mile northeast of Baraboo (Sauk County); 5 inches at Markesan (Green Lake County) and 4.9 inches in Montello (Marquette County). In addition to the snow that fell during the blizzard, several inches of snow fell on Jan 31. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of February 2nd. Snow drifts of 1 to 3 feet were common.

---

(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE

02/01/11 21:30 CST	0	Blizzard
02/02/11 06:00 CST	0	

A powerful low pressure center, passing south of Wisconsin, produced blizzard conditions across much of southern Wisconsin from the evening hours of Tuesday, February 1st into the early morning of Wednesday, February 2nd. Snow associated with the system began in the mid-afternoon hours of February 1st in far southern Wisconsin and became heavy as it pushed northward into the state through the late afternoon and evening. Very strong winds were associated with this storm for an extended period of time. Sustained northeast winds of 30 to 40 mph were common through the event, with peak wind gusts between 45 and 55 mph, with the stronger wind gusts near Lake Michigan. The lakeshore observation site at Sheboygan reported a 55 mph wind gust at 6 pm CST on February 1st. The combination of high winds and heavy snow created widespread sustained visibilities of less than 1/4 mile, with frequent whiteout conditions and near zero visibilities. Twenty-four hour snowfall totals were between 8 and 16 inches, with 16 inches of snow measured by a cooperative observer 1 mile southwest of West Bend (Washington County); 11.5 inches near Beaver Dam in the town of Westfield (Dodge County); 9.5 inches just southwest of the city of Sheboygan; 8.5 inches in Grafton (Ozaukee County); and 8 inches 2 miles southwest of Fond Du Lac. In addition to the snow that fell during the blizzard, several inches of snow fell on Jan 31, with light lake effect snow through the day on Feb 1st. It's possible that some locations did not see a break in snowfall between the evening of January 31st and the morning of February 2nd. Snow drifts of 3 to 10 feet were common, with reports of some drifts reaching 12 to 15 feet in open rural areas. Drifting snow closed county highways and roads with many stranded motorists having to be rescued from vehicles buried in the drifting snow. About 100 National Guardsman were mobilized statewide in response to Gov. Scott Walker's emergency declaration for 29 counties to help rescue motorists and run emergency shelters at armories. Dodge County law enforcement reported 174 vehicles were stuck in snow or had skidded off area roads. A Randolph (Dodge County) man injured his hand in a snow blower incident. At the height of the storm, WE Energies reported 5,200 customers were without power across Southeast Wisconsin.

---

(WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE

02/06/11 06:00 CST	0	Winter Weather
02/06/11 14:00 CST	0	

Forcing from an upper level disturbance produced a band of moderate snow over parts of South Central and Southeast Wisconsin and left behind accumulations of 3 to 5.5 inches within a 7 to 8 hour period. The core of the band extended from the Monroe area in Green County, northeast to the City of Milwaukee. Media outlets reports dozens of vehicle accidents. Maximum snow accumulations included 5.5 inches at Palmyra 1.2 SW (Jefferson Co.), 5.0 inches at Orfordville (Rock Co.) and Mukwonago (Waukesha Co.), 4.5 inches in East Troy (Walworth Co.), 4.0 inches in Brodhead (Green Co.), and 3.7 inches at both Milwaukee Mitchell Field (Milwaukee Co.) and Waterford (Racine Co.).

---

(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z068) GREEN, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA

02/18/11 13:00 CST	30K	Strong Wind (MAX 39 kt)
02/18/11 18:00 CST	0	

## Storm Data and Unusual Weather Phenomena - February 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

A tight pressure gradient around strong low pressure over James Bay, 3-hourly pressure rises of 2 to 4 mb, and daytime mixing up to 925 mb winds of 35 to 45 knots produced strong gusty winds that affected parts of South Central and Southeast Wisconsin with sustained winds of 26 to 29 knots (30 - 33 mph) and gusts to 39 knots (45 mph). Scattered power-outages were noted by the media as old tree branches fell onto power lines. The responsible low pressure moved east across the northern part of Lake Superior which allowed strong west winds to affect parts of Wisconsin.

---

(WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE

02/20/11 08:00 CST	0	Winter Storm
02/20/11 11:30 CST	0	

Surface low pressure tracked from eastern Iowa to just south of Chicago producing a winter storm with a mixed-bag of precipitation types and wind gusts of 22 to 33 knots (25 to 34 mph) that affected South Central and Southeast Wisconsin from February 20th into early February 21st. Visibilities were reduced to around 1/2 mile. Only those counties bordering Illinois escaped the storm. The counties of Iowa, Dane, Jefferson, Waukesha, and Milwaukee picked up about 1/4 inch of ice due to freezing rain, and followed this with 1/2 to 1 inch of sleet and then light snow of 1/2 to 1.5 inches. Maximum sleet and snow accumulations were 2 inches in Mazomanie (Dane Co.), 3.0 inches in Watertown (Jefferson Co.), 5.4 inches in Merton (Waukesha Co.), and 7.2 inches in Brown Deer (Milwaukee Co.). The precipitation north of these counties was mostly snow.

---

(WI-Z056) SAUK, (WI-Z057) COLUMBIA

02/20/11 08:00 CST	0	Winter Storm
02/20/11 23:30 CST	0	

Surface low pressure tracked from eastern Iowa to just south of Chicago producing a winter storm with a mixed-bag of precipitation types and wind gusts of 22 to 33 knots (25 to 34 mph) that affected South Central and Southeast Wisconsin from February 20th into early February 21st. Visibilities were reduced to around 1/2 mile. Only those counties bordering Illinois escaped the storm. The counties of Sauk and Columbia picked up 1/2 to 1 inch of sleet followed by several inches of snow. Maximum snow and sleet accumulations were 3 to around 7 inches, with the lower amounts in the southern portions of these counties. The greatest totals were 7.3 inches in Portage (Columbia Co.) and 7 inches in La Valle (Sauk Co.). The precipitation north of these counties was mostly snow while south of these counties most of the precipitation was freezing rain and sleet.

---

(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE

02/20/11 08:00 CST	0	Winter Storm
02/21/11 03:55 CST	0	

Surface low pressure tracked from eastern Iowa to just south of Chicago producing a winter storm with a mixed-bag of precipitation types and wind gusts of 22 to 33 knots (25 to 34 mph) that affected South Central and Southeast Wisconsin from February 20th into early February 21st. Visibilities were reduced to around 1/2 mile. Only those counties bordering Illinois escaped the storm. The counties of Marquette, Green Lake, Fond du Lac, Sheboygan, Dodge, Washington, and Ozaukee had mostly snow, but did get a touch of sleet. Maximum snow accumulations ranged from 6 inches to 13 inches. Specifically, maximum accumulations in each county include 10 inches across extreme northern Marquette and Green Lake counties, 9 inches just east of the city of Fond du Lac in St. Peters, 14 inches in Ootsburg (Sheboygan Co.), 7.5 inches in the Beaver Dam area, 10.2 inches in Jackson (Washington Co.), and 12 inches in Belgium (Ozaukee Co.). The precipitation south of these counties consisted of more freezing rain and sleet with much lesser amounts of snow.

---

(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA

02/21/11 15:00 CST	0	Winter Weather
02/22/11 06:00 CST	0	

A long-duration snow affected all of South Central and Southeast Wisconsin from the afternoon hours of February 21st to almost daybreak February 22nd. Just prior to the snow, light freezing drizzle glazed untreated roads and other surfaces. There was some lake-enhancement of the snow in those areas near Lake Michigan. The media noted dozens of vehicle accidents. Maximum snow accumulations include 2.5 inches in Marquette Co., 3.5 inches in Green Lake Co., 4.5 inches in Fond du Lac and Sheboygan counties, around 2 inches in Sauk Co., 3 inches in Columbia Co., 4 inches in Dodge Co., 5.9 inches in Washington Co., 7.5 inches in Ozaukee Co., about 2 inches in Iowa Co., 2.5 inches in Dane Co., 3.4 inches in Jefferson Co., 6.4 inches in Waukesha Co., 6 inches in Milwaukee Co., 1.5 inches in Lafayette Co., 2 inches in Green Co., 3 inches in Rock Co., 2.5 inches in Walworth Co., 4 inches in Racine Co., and 3 inches in Kenosha Co. The snow and freezing rain was related to forcing with an upper-level low pressure which moved from Minnesota southeast across southern Wisconsin along with convergence along an inverted surface trough that extended across southern Wisconsin.

## Storm Data and Unusual Weather Phenomena - March 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WISCONSIN, Southeast</b>				
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE				
	03/09/11 00:00 CST		0	Winter Weather
	03/09/11 14:00 CST		0	
<p>Surface low pressure developed rapidly ahead of a strong short wave trough and moved south of Wisconsin from west central Illinois to just south of Chicago. A shield of precipitation spread over southern Wisconsin the night of March 8th with forcing from warm air advection ahead of the low, and continued through the morning of the 9th as the low crossed northern Illinois. The thermal structure associated with the storm was such that the rain/snow line bisected the Milwaukee/Sullivan County Warning Area. Locations along and northwest of a Fond Du Lac to Madison line saw snowfall accumulations of 3 to 5 inches, with isolated spots seeing more than 5 inches. To the east of this line, 2 to 4 inches of snow was common. The tier of counties right along the Illinois border only received 1 to 2 inches of snow, as most of the precipitation fell as rain.</p>				
<b>DODGE COUNTY --- 1.0 SE WAUPUN [43.62, -88.72]</b>				
	03/20/11 18:48 CST		0	Hail (1.00 in)
	03/20/11 18:48 CST		0	Source: Trained Spotter
<p>Large scale forcing for ascent was provided by a vigorous mid-level short wave trough that moved from the northern Plains across northern Wisconsin during the evening of March 20th. A strong southerly low-level flow over an approaching surface warm front produced elevated thunderstorms over southern Wisconsin.</p>				
<b>DANE COUNTY --- 1.6 SSW MONONA [43.05, -89.34], 1.7 E BLOOMING GROVE [43.05, -89.34]</b>				
	03/29/11 17:10 CST		0.50K	Dust Devil
	03/29/11 17:11 CST		0	Source: Public
<p>High pressure brought light gradient winds with good diurnal heating conditions producing steep low level lapse rates. A local temperature variation between land and nearby Lake Monona created a localized shear zone that led to the formation of a dust devil near Monona...southeast of the city of Madison. The dust devil developed over the Yahara River, traveled south, and came ashore where it picked up a plastic storage shed located near the Four Lake Yacht Club and blew off the roof of the shed.</p>				

## Storm Data and Unusual Weather Phenomena - April 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]</b>				
	04/10/11 21:44 CST		0	Marine Thunderstorm Wind (MG 36 kt)
	04/10/11 21:50 CST		0	Source: C-MAN Station
Severe thunderstorm wind gusts lasted 6 minutes.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	04/10/11 21:45 CST		0	Marine Thunderstorm Wind (MG 40 kt)
	04/10/11 21:45 CST		0	Source: C-MAN Station
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	04/10/11 22:20 CST		0	Marine Thunderstorm Wind (MG 36 kt)
	04/10/11 22:30 CST		0	Source: C-MAN Station
Severe thunderstorm wind gusts lasted 10 minutes.				
Line of severe thunderstorms produced brief wind gusts exceeding 33 knots in the late evening.				
<b>WISCONSIN, Southeast</b>				
<b>DODGE COUNTY --- 1.0 SE BEAVER DAM [43.46, -88.82]</b>				
	04/03/11 10:35 CST		12K	Hail (0.75 in)
	04/03/11 10:40 CST		0	Source: Newspaper
A shower of 3/4 inch hail produced icy roads that caused a two-vehicle accident on State Highway 151 north of State Highway 33, north of Beaver Dam. A 26-year-old Green Bay woman was killed, and the male drivers of the two vehicles were injured.				
<b>LAFAYETTE COUNTY --- 0.5 E BELMONT [42.73, -90.32]</b>				
	04/03/11 19:55 CST		0	Hail (1.75 in)
	04/03/11 19:55 CST		0	Source: Trained Spotter
<b>LAFAYETTE COUNTY --- 0.5 NW DARLINGTON [42.69, -90.13]</b>				
	04/03/11 19:55 CST		0	Hail (1.75 in)
	04/03/11 19:55 CST		0	Source: Law Enforcement
<b>DANE COUNTY --- MT HOREB [43.00, -89.73], 1.0 E MT HOREB [43.00, -89.71]</b>				
	04/03/11 20:20 CST		0	Hail (1.75 in)
	04/03/11 20:25 CST		0	Source: Amateur Radio
<b>DANE COUNTY --- MIDDLETON [43.10, -89.50]</b>				
	04/03/11 20:30 CST		0	Hail (2.00 in)
	04/03/11 20:30 CST		0	Source: Amateur Radio
<b>DANE COUNTY --- 1.0 NE MIDDLETON [43.11, -89.49]</b>				
	04/03/11 20:33 CST		0	Hail (2.50 in)
	04/03/11 20:33 CST		0	Source: Amateur Radio
<b>DANE COUNTY --- MIDDLETON [43.10, -89.50]</b>				
	04/03/11 20:35 CST		0	Hail (2.75 in)
	04/03/11 20:35 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- CAMP RANDALL STADIUM [43.07, -89.41]</b>				
	04/03/11 20:38 CST		0	Hail (1.75 in)
	04/03/11 20:45 CST		0	Source: Broadcast Media



## Storm Data and Unusual Weather Phenomena - April 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>DANE COUNTY --- 1.0 W MONONA [43.07, -89.34]</b>				
	04/03/11 20:39 CST		0	Hail (2.00 in)
	04/03/11 20:39 CST		0	Source: Amateur Radio
<b>DANE COUNTY --- CAMP RANDALL STADIUM [43.07, -89.41]</b>				
	04/03/11 20:45 CST		0	Hail (1.75 in)
	04/03/11 20:45 CST		0	Source: Public
<b>LAFAYETTE COUNTY --- GRATIOT [42.58, -90.02]</b>				
	04/03/11 20:50 CST		0	Hail (1.75 in)
	04/03/11 20:50 CST		0	Source: Law Enforcement
<b>DANE COUNTY --- MIDDLETON [43.10, -89.50]</b>				
	04/03/11 20:51 CST		0	Hail (2.50 in)
	04/03/11 20:51 CST		0	Source: Public
<b>DANE COUNTY --- DE FOREST [43.25, -89.33]</b>				
	04/03/11 20:55 CST		0	Hail (1.75 in)
	04/03/11 20:55 CST		0	Source: Public
<b>COLUMBIA COUNTY --- FALL RIVER [43.38, -89.05]</b>				
	04/03/11 21:15 CST		0	Hail (1.00 in)
	04/03/11 21:15 CST		0	Source: Public
<b>JEFFERSON COUNTY --- 4.0 NNW LAKE MILLS [43.13, -88.93]</b>				
	04/03/11 21:20 CST		0	Hail (0.88 in)
	04/03/11 21:20 CST		0	Source: Public
<b>DODGE COUNTY --- 4.0 NNW WATERTOWN [43.25, -88.75]</b>				
	04/03/11 22:04 CST		0	Hail (1.00 in)
	04/03/11 22:04 CST		0	Source: Trained Spotter
<b>DODGE COUNTY --- 4.0 NE IRON RIDGE [43.44, -88.47], 3.8 ENE HERMAN CENTER [43.44, -88.40]</b>				
	04/04/11 00:15 CST		0	Thunderstorm Wind (EG 70 kt)
	04/04/11 00:21 CST		0	Source: Trained Spotter
<b>WASHINGTON COUNTY --- 0.7 S NENNO [43.44, -88.40], WEST BEND [43.42, -88.18]</b>				
	04/04/11 00:21 CST		0	Thunderstorm Wind (EG 70 kt)
	04/04/11 00:33 CST		0	Source: Trained Spotter

Trees were blown down, shingles were torn off roofs and a corn crib was blown over by thunderstorm winds estimated at 80 mph (70 knots). This Dodge County damage swath continued into Washington County and ended in West Bend. Collectively the damage swath was roughly 14 miles long. The width of the damage swath was about 2 miles.

Trees were blown down and shingles were torn off roofs by thunderstorm winds estimated at 80 mph (70 knots). This Washington County damage swath actually started in Dodge County about 4 miles northeast of Iron Ridge. The entire damage swath stretched for roughly 14 miles and had a width of about 2 miles.

Two rounds of thunderstorms affected southern Wisconsin on April 3rd, as low pressure moved northeast from Iowa across Wisconsin. Morning elevated thunderstorms, with warm air advection on the nose of a low-level jet ahead of the approaching low, did not produce severe weather...but a shower of small hail created icy road conditions in Dodge County, where a two-vehicle accident killed a 26 year old female and injured two others. During the afternoon hours, a warm front lifted into southern Wisconsin as the low moved into the state...with mean layer CAPE increasing to 1000 to 1500 J/kg along with strong low layer shear and deep layer bulk shear. This triggered the second round of thunderstorms in the evening that were severe, producing mainly large hail up to the size of a baseballs, along with damaging winds. Madison-based American Family Insurance Company reported 375 property claims as well as 200 vehicle damage claims in Dane and Dodge counties alone. There were probably more damaged vehicles that weren't reported to insurance companies. Roof damage caused by the golf ball to baseball-sized hail was extensive in the western suburbs of Madison, with some homes and businesses requiring whole-roof replacements. It was not possible to break up the insurance company claims and assign monetary losses to individual storms. Total monetary losses were probably in the low millions of dollars.

## Storm Data and Unusual Weather Phenomena - April 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>GREEN LAKE COUNTY --- 3.6 SSE BERLIN [43.92, -88.91], 3.0 SE BERLIN [43.94, -88.89]</b>				
	04/10/11 19:27 CST		0.30K	Tornado (EF0, L: 1.83 mi , W: 50 yd)
	04/10/11 19:29 CST		0	Source: NWS Storm Survey
An EF0 tornado developed about 3.5 miles south-southeast of Berlin just south of the intersection of County Road F and County Road AA and traveled northeast about 1.8 miles before dissipating on Meadow Brook Road just east of County Trunk Highway V. The tornadic winds sucked lawn furniture from under a porch where it was being stored and threw it against a fence. Tree branches were snapped and a wooden structure received light damage along the path of the tornado. There was \$300 dollars of damage done to an outdoor spa. The exact start location was Lat 43.91978 Lon -88.91302. The exact end locations was Lat 43.93922 Lon -88.88818. The EF-rating was based on DI 27 (TH), DOD 2 which suggests winds speeds around 80 mph. The average path width of the tornado was 30 yards.				
<b>WAUKESHA COUNTY --- 2.0 SW MUSKEGO [42.88, -88.16], MUSKEGO [42.90, -88.13]</b>				
	04/10/11 21:28 CST		0	Thunderstorm Wind (EG 70 kt)
	04/10/11 21:30 CST		0	Source: Law Enforcement
A severe thunderstorm produced damaging wind gusts estimated up to 80 mph (70 knots). Trees were knocked down and tree branches were broken along the path of the strong winds.				
<b>MILWAUKEE COUNTY --- 2.0 W (MKE)MITCHELL APT MI [42.95, -87.94]</b>				
	04/10/11 21:45 CST		0	Thunderstorm Wind (EG 57 kt)
	04/10/11 21:45 CST		0	Source: Trained Spotter
A severe thunderstorm produced damaging wind gusts estimated up to 65 mph (57 knots). Trees were knocked down and tree branches were broken by the strong winds.				
<b>MILWAUKEE COUNTY --- WEST ALLIS [43.00, -87.97]</b>				
	04/10/11 21:45 CST		0	Thunderstorm Wind (EG 61 kt)
	04/10/11 21:45 CST		0	Source: Trained Spotter
A severe thunderstorm produced damaging wind gusts estimated up to 70 mph (61 knots). Trees were knocked down and tree branches were broken by the strong winds.				
An outbreak of severe thunderstorms, caused by low pressure moving from southwest Minnesota across northwest Wisconsin, produced 10 tornadoes in Wisconsin, which tied a record for the largest number of tornadoes in one day in the month of April in the state. Southern Wisconsin was in the warm sector of the system for most of the day, with a capping inversion preventing thunderstorm development until early in the evening. The exit region of an upper jet helped break the cap, with severe super-cell thunderstorms rapidly developing in an unstable environment, with surface-based CAPE of 2000 J/kg and strong vertical shear. There was one tornado reported in the Milwaukee/Sullivan County Warning Area, an EF0 tornado that tracked across northeast Green Lake County just southeast of Berlin. Severe thunderstorms produced damaging winds in Waukesha and Milwaukee counties.				
<b>(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUCKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA</b>				
	04/15/11 09:00 CST		69K	Strong Wind (MAX 47 kt)
	04/15/11 20:00 CST		0	
Southern Wisconsin was situated between a polar high pressure area centered over southeast Canada and a strong low pressure that tracked from the central Plains toward northwest Illinois during the day on April 15th. The resulting tight surface pressure gradient over the region produced sustained east winds of 25 to 35 mph with peak gusts between 45 and 54 mph over a nearly 12-hour period. Scattered power outages were noted across southern Wisconsin due to broken tree branches falling on to power-lines.				
<b>(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN</b>				
	04/19/11 12:00 CST		0	Winter Storm
	04/19/11 20:40 CST		0	
A strong late-season surface low pressure system crossed central Illinois into Lower Michigan on the 19th, bringing a variety of weather to southern Wisconsin. A tight 850 mb to 700 mb baroclinic zone over the region set up a strong frontogenetic response and isentropic lift with a strengthening low level flow ahead of the low...with rain showers and a few strong thunderstorms on the warm side of the system...and heavy wet snow to the north. The precipitation rates were enhanced by elevated instability and a strong dynamic contribution with the vigorous 500 mb short wave trough leading to thunder snow in the northern counties, and a severe thunderstorm in Rock County. The mix of rain, sleet and snow was accompanied by gusty east winds that lowered visibilities and added to the difficult driving conditions that led to numerous vehicle accidents across the region. Maximum storm-total snowfall amounts ranged from 6 to 7 inches in the northern parts of the counties of Green Lake and Marquette.				

## Storm Data and Unusual Weather Phenomena - April 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>(WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON</b>				
	04/19/11 12:00 CST		0	Winter Weather
	04/19/11 20:40 CST		0	

A strong late-season surface low pressure system crossed central Illinois into Lower Michigan on the 19th, bringing a variety of weather to southern Wisconsin. Rain showers and a few strong thunderstorms occurred on the warm side of the system...and heavy wet snow to the north. Some thunder-snow was reported. The mix of rain, sleet and snow was accompanied by gusty east winds that lowered visibilities and added to the difficult driving conditions that led to a number of vehicle accidents across the region. Snowfall amounts were generally in the 3 to 5 inch range.

---

### ROCK COUNTY --- 1.1 W BELOIT JCT [42.50, -89.04]

04/19/11 12:30 CST	0	Thunderstorm Wind (EG 65 kt)
04/19/11 12:30 CST	0	Source: Law Enforcement

Strong winds from a thunderstorm, enhanced by a gravity wave passing through the region, produced a wind gust estimated at 65 knots (75 mph) in the city of Beloit. The strong winds collapsed the roof of a day care center. Heavy rain and hail were also occurring at the time of the roof collapse.

---

### SHEBOYGAN COUNTY --- 1.4 E PLYMOUTH [43.75, -87.95]

04/19/11 17:40 CST	3K	Lightning
04/19/11 17:40 CST	0	Source: Newspaper

Lightning struck a utility pole, destroying an insulator and caused an electrical wire to break and fall to the ground. 500 homes and businesses were left without power on the east side of Plymouth, until repairs were made and all power was restored around 915 pm CDT.

A strong late-season surface low pressure system crossed central Illinois into Lower Michigan on the 19th, bringing a variety of weather to southern Wisconsin. A tight 850 mb to 700 mb baroclinic zone over the region set up a strong frontogenetic response and isentropic lift with a strengthening low level flow ahead of the low...with rain showers and a few strong thunderstorms on the warm side of the system...and heavy wet snow to the north. The precipitation rates were enhanced by elevated instability and a strong dynamic contribution with the vigorous 500 mb short wave trough leading to thunder snow in the northern counties and a severe thunderstorm in Rock County.

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]</b>				
	05/22/11 17:17 CST		0	Marine Thunderstorm Wind (MG 36 kt)
	05/22/11 17:17 CST		0	Source: C-MAN Station
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.4 E SHEBOYGAN [43.75, -87.69]</b>				
	05/22/11 18:00 CST		0	Marine Thunderstorm Wind (MG 39 kt)
	05/22/11 18:00 CST		0	Source: C-MAN Station
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	05/22/11 19:00 CST		0	Marine Thunderstorm Wind (MG 37 kt)
	05/22/11 19:00 CST		0	Source: C-MAN Station
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	05/22/11 19:15 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	05/22/11 19:15 CST		0	Source: C-MAN Station
Several rounds of strong thunderstorms affected the near-shore waters of Lake Michigan during the early evening.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	05/31/11 13:45 CST	1	0	Marine Strong Wind (MG 38 kt)
	05/31/11 13:45 CST		0	Source: C-MAN Station
Direct Fatalities: U0??				
A strong cold front moved through the near shore areas during the afternoon of May 31st and generated severe storms with gusty winds over portions of the near-shore waters of Lake Michigan.				
<b>WISCONSIN, Southeast</b>				
<b>FOND DU LAC COUNTY --- 5.8 S WAUPUN [43.55, -88.72]</b>				
	05/09/11 13:47 CST		15K	Lightning
	05/09/11 13:47 CST		0	Source: Newspaper
Lightning struck a building in the township of Chester, setting the 100-foot by 60-foot structure on fire. Damage was moderate, totaling \$15,000, and contained to one bay in the shop area at the rear of the building.				
<b>DODGE COUNTY --- 0.5 WSW BEAVER DAM [43.47, -88.84]</b>				
	05/09/11 19:15 CST		50K	Lightning
	05/09/11 19:15 CST		0	Source: Newspaper
A house was damaged in the 500 block of west Burnett Street in Beaver Dam by lightning that struck a nearby tree and traveled through the ground into the house. The resulting fire caused \$50,000 in damage to the structure. Two firefighters were injured (indirectly-related) when a portion of the ceiling collapsed in the home.				
Elevated convection developed over southern Wisconsin as a strengthening low-level jet pushed warm and unstable air into the region over a warm front that had reached northern Illinois. The thunderstorms produced numerous lightning strikes that struck and damaged a home in Beaver Dam in Dodge County, and a shed in Waupun in Fond Du Lac County.				
<b>DANE COUNTY --- 1.0 E DOWNTOWN MADISON [43.07, -89.40]</b>				
	05/11/11 12:36 CST		0	Hail (1.00 in)
	05/11/11 12:36 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- (MSN)TRUAX FLD MADIS [43.13, -89.33]</b>				

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/11/11 12:41 CST		0	Hail (1.00 in)
	05/11/11 12:41 CST		0	Source: Trained Spotter
<hr/>				
DANE COUNTY --- 2.0 E (MSN)TRUAX FLD MADIS [43.13, -89.29]	05/11/11 12:43 CST		0	Hail (1.00 in)
	05/11/11 12:43 CST		0	Source: Trained Spotter
<hr/>				
DANE COUNTY --- MC FARLAND [43.02, -89.28]	05/11/11 12:43 CST		0	Hail (1.00 in)
	05/11/11 12:43 CST		0	Source: Trained Spotter
<hr/>				
DANE COUNTY --- 3.0 E DOWNTOWN MADISON [43.07, -89.36]	05/11/11 12:45 CST		0	Hail (1.25 in)
	05/11/11 12:45 CST		0	Source: Trained Spotter
<hr/>				
DANE COUNTY --- 1.0 E (MSN)TRUAX FLD MADIS [43.13, -89.31], 2.0 E (MSN)TRUAX FLD MADIS [43.13, -89.29]	05/11/11 12:47 CST		0	Hail (1.50 in)
	05/11/11 12:47 CST		0	Source: Trained Spotter
<hr/>				
DANE COUNTY --- 4.0 E MC FARLAND [43.02, -89.20]	05/11/11 13:00 CST		0	Hail (2.00 in)
	05/11/11 13:00 CST		0	Source: Public
<hr/>				
JEFFERSON COUNTY --- 5.0 WNW FT ATKINSON [42.96, -88.94]	05/11/11 13:26 CST		0	Hail (1.75 in)
	05/11/11 13:26 CST		0	Source: Law Enforcement
<hr/>				
DANE COUNTY --- 1.0 W SUN PRAIRIE [43.18, -89.22]	05/11/11 13:28 CST		0	Hail (1.00 in)
	05/11/11 13:28 CST		0	Source: Amateur Radio
<hr/>				
DANE COUNTY --- 4.7 NNE LONDON [43.11, -88.95]	05/11/11 13:30 CST		0	Hail (1.00 in)
	05/11/11 13:30 CST		0	Source: Trained Spotter
<hr/>				
JEFFERSON COUNTY --- 4.0 W JEFFERSON [43.00, -88.88]	05/11/11 13:34 CST		0	Hail (4.25 in)
	05/11/11 13:34 CST		0	Source: Emergency Manager
<hr/>				
JEFFERSON COUNTY --- 1.0 N JEFFERSON [43.01, -88.80]	05/11/11 13:40 CST		0	Hail (2.00 in)
	05/11/11 13:43 CST		0	Source: NWS Employee
<hr/>				
JEFFERSON COUNTY --- JOHNSON CREEK [43.08, -88.77]	05/11/11 13:40 CST		0	Hail (2.75 in)
	05/11/11 13:40 CST		0	Source: Public
<hr/>				
Report from the public of baseball-sized hail that broke windows on homes and vehicles.				
<hr/>				
DANE COUNTY --- 0.4 NE VERONA [42.98, -89.52]	05/11/11 15:08 CST		0	Hail (1.25 in)
	05/11/11 15:08 CST		0	Source: Amateur Radio
<hr/>				
DANE COUNTY --- 2.0 S DOWNTOWN MADISON [43.04, -89.42]	05/11/11 15:28 CST		0	Hail (1.25 in)
	05/11/11 15:28 CST		0	Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>DANE COUNTY --- 1.2 NW MIDDLETON [43.11, -89.52]</b>				
	05/11/11 15:30 CST		0	Hail (0.75 in)
	05/11/11 15:30 CST		0	Source: Trained Spotter
<b>WAUKESHA COUNTY --- HARTLAND [43.10, -88.35]</b>				
	05/11/11 15:30 CST		0	Hail (2.00 in)
	05/11/11 15:30 CST		0	Source: Trained Spotter
<b>WAUKESHA COUNTY --- 1.0 S HARTLAND [43.09, -88.35]</b>				
	05/11/11 15:37 CST		0	Hail (1.00 in)
	05/11/11 15:37 CST		0	Source: Amateur Radio
<b>DANE COUNTY --- DOWNTOWN MADISON [43.07, -89.42]</b>				
	05/11/11 15:38 CST		0	Hail (0.75 in)
	05/11/11 15:38 CST		0	Source: Trained Spotter
<b>GREEN COUNTY --- 0.7 S MONROE [42.59, -89.63]</b>				
	05/11/11 15:38 CST		0	Hail (1.00 in)
	05/11/11 15:38 CST		0	Source: Emergency Manager
<b>WAUKESHA COUNTY --- HARTLAND [43.10, -88.35]</b>				
	05/11/11 15:44 CST		0	Hail (1.25 in)
	05/11/11 15:44 CST		0	Source: NWS Employee
<b>DANE COUNTY --- 1.6 SSE MONONA [43.05, -89.31]</b>				
	05/11/11 15:45 CST		0	Hail (1.75 in)
	05/11/11 15:45 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- 1.8 SW COTTAGE GROVE [43.06, -89.23]</b>				
	05/11/11 15:50 CST		0	Hail (1.00 in)
	05/11/11 15:50 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- COTTAGE GROVE [43.08, -89.20]</b>				
	05/11/11 15:54 CST		0	Hail (0.88 in)
	05/11/11 15:54 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- DOWNTOWN MADISON [43.07, -89.42]</b>				
	05/11/11 16:01 CST		0	Hail (0.75 in)
	05/11/11 16:01 CST		0	Source: Trained Spotter
<b>RACINE COUNTY --- 1.0 SE BOHNERS LAKE [42.62, -88.26]</b>				
	05/11/11 16:55 CST		0	Hail (0.88 in)
	05/11/11 16:55 CST		0	Source: Trained Spotter
<p>Strong to severe thunderstorms developed as lift associated with a 500 mb short wave moved into southern Wisconsin. The short wave eroded a cap on a moist and unstable air mass, with mixed-layer CAPE values of 2,000 to 3,000 J/KG, and enough deep-layer shear for sustained updrafts. There were numerous reports of large hail in the 1 to 2 inch range with the severe thunderstorms, with 4-inch hail reported in Jefferson County. While no specific damage reports were made to officials, the Jefferson County Emergency Management Director stated some properties might have received damage from the large hail, such as dents to vehicles.</p>				
<b>FOND DU LAC COUNTY --- RIPON [43.83, -88.83]</b>				
	05/12/11 16:08 CST		0	Hail (0.75 in)
	05/12/11 16:08 CST		0	Source: Law Enforcement

A few strong thunderstorms developed as lift associated with a 500 mb short wave interacted with an unstable air mass, with 1500 J/KG of mixed-layer CAPE and enough deep-layer shear for sustained updrafts over southern Wisconsin. There were reports of one-half inch to three-quarter inch hail, mainly in western Fond Du Lac County, and one-quarter inch hail in western sections of Racine and Kenosha counties.

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>(WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z060) OZAUKEE</b>				
	05/13/11 01:00 CST		0	Dense Fog
	05/13/11 10:00 CST		0	
<p>Light north to northeast winds behind slowly departing low pressure advected moisture off of Lake Michigan into a cool air mass over east-central and portions of southeast Wisconsin during the early morning hours of May 13th. Visibilities fell to one-quarter mile or less, and lingered until the mid to late morning hours when drier air on increasing northwest winds dissipated the fog.</p>				
<b>ROCK COUNTY --- 2.0 NE AFTON [42.62, -89.04]</b>				
	05/13/11 05:24 CST		0	Hail (0.75 in)
	05/13/11 05:24 CST		0	Source: Trained Spotter
<p>A few strong elevated thunderstorms developed in the early morning hours as lift associated with warm air advection interacted with an unstable air mass, with 1000-2000 J/KG of mixed-layer CAPE and enough deep-layer shear for a few sustained updrafts over South Central Wisconsin. There were reports of three-quarter inch hail in Rock County.</p>				
<b>(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA</b>				
	05/15/11 06:00 CST		90K	Strong Wind (MAX 41 kt)
	05/15/11 17:00 CST		0	
<p>A tight pressure gradient between low pressure over Ohio and a ridge of high pressure extending from North Dakota into Ontario, Canada, produced strong north to northeast winds over most of South-Central Wisconsin and Southeast Wisconsin. Daytime heating of dry air that had spread into the region with the leading edge of the high allowed mixing up to 40 to 45 knot winds about 5,000 feet above ground level. This mixing resulted in sustained winds of 30 to 35 mph and wind gusts up to 45 mph at the surface. Scattered power-outages were reported due to broken tree branches falling on and snapping power-lines.</p>				
<b>MARQUETTE COUNTY --- WESTFIELD [43.88, -89.48]</b>				
	05/22/11 14:00 CST		0	Hail (2.00 in)
	05/22/11 14:00 CST		0	Source: Trained Spotter
A trained spotter reported leaves stripped from trees in Westfield by large hail.				
<b>MARQUETTE COUNTY --- 1.0 E WESTFIELD [43.88, -89.46]</b>				
	05/22/11 14:05 CST		0	Hail (4.25 in)
	05/22/11 14:05 CST		0	Source: Fire Department/Rescue
<b>MARQUETTE COUNTY --- 1.0 S WESTFIELD [43.87, -89.48]</b>				
	05/22/11 14:10 CST		0	Hail (2.75 in)
	05/22/11 14:10 CST		0	Source: Public
<b>MARQUETTE COUNTY --- 7.0 W NESHKORO [43.97, -89.36]</b>				
	05/22/11 14:20 CST		0	Hail (1.75 in)
	05/22/11 14:20 CST		0	Source: Trained Spotter
<b>GREEN LAKE COUNTY --- 8.0 N PRINCETON [43.97, -89.12]</b>				
	05/22/11 14:22 CST		0	Hail (1.75 in)
	05/22/11 14:22 CST		0	Source: Law Enforcement
<b>GREEN LAKE COUNTY --- 8.2 N PRINCETON [43.97, -89.12]</b>				
	05/22/11 14:38 CST		0	Hail (1.75 in)
	05/22/11 14:38 CST		0	Source: Law Enforcement
<b>DANE COUNTY --- 2.0 E (MSN)TRUAX FLD MADIS [43.13, -89.29]</b>				
	05/22/11 15:45 CST		0	Hail (0.75 in)
	05/22/11 15:45 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- 2.0 W SUN PRAIRIE [43.18, -89.24], 4.4 N YORK CENTER [43.29, -89.07]</b>				

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/22/11 15:50 CST		0	Hail (1.75 in)
	05/22/11 16:10 CST		0	Source: Amateur Radio

Ham radio operators reported severe thunderstorms dropped hail up to 1.75 inches in diameter in a 4-mile wide swath from 2 miles west of Sun Prairie to around 4 miles south-southwest of Columbus.

---

### JEFFERSON COUNTY --- 3.0 SW LAKE MILLS [43.05, -88.94], 1.0 NE LAKE MILLS [43.09, -88.89]

05/22/11 16:30 CST	0	Hail (1.00 in)
05/22/11 16:35 CST	0	Source: Amateur Radio

Ham radio operators reported severe thunderstorms dropped hail up to 1.00 inch in diameter in a 3-mile wide swath from 3 miles southwest of Lake Mills to 1 mile northeast of Lake Mills.

---

### DODGE COUNTY --- 1.0 N CLYMAN [43.33, -88.72]

05/22/11 16:36 CST	0	Hail (1.00 in)
05/22/11 16:36 CST	0	Source: Amateur Radio

---

### DODGE COUNTY --- HUSTISFORD [43.35, -88.60]

05/22/11 16:40 CST	10K	Thunderstorm Wind (EG 60 kt)
05/22/11 16:40 CST	0	Source: Newspaper

Numerous trees and power lines were reported blown down by damaging thunderstorm wind gusts in the Hustisford area. A tree fell on a home damaging the roof. A tree fell on an occupied car, and the driver injured his shoulder (indirectly-related) exiting the car. Total damage in the area amounted to \$10,000.

---

### JEFFERSON COUNTY --- 2.0 SW WATERTOWN [43.18, -88.75], WATERTOWN [43.20, -88.72]

05/22/11 16:50 CST	0	Hail (1.75 in)
05/22/11 16:56 CST	0	Source: NWS Employee

---

### ROCK COUNTY --- MILTON [42.77, -88.95]

05/22/11 16:51 CST	0	Hail (0.75 in)
05/22/11 16:51 CST	0	Source: NWS Employee

---

### JEFFERSON COUNTY --- 2.0 S WATERTOWN [43.17, -88.72], WATERTOWN [43.20, -88.72]

05/22/11 16:52 CST	50K	Thunderstorm Wind (EG 56 kt)
05/22/11 16:54 CST	0	Source: Newspaper

Numerous trees and power lines were reported blown down by damaging thunderstorm wind gusts estimated at 56 knots in a swath from 2 miles south of Watertown to Watertown. A tree fell on a home, with minimal damage reported by firefighters responding to the scene. The winds blew over a shed that damaged fencing, a viewing platform and a horse trailer at the Avalon Therapeutic Equestrian Center. Damage in the area totaled \$50,000 dollars.

---

### JEFFERSON COUNTY --- FT ATKINSON [42.93, -88.85], JEFFERSON [43.00, -88.80]

05/22/11 16:55 CST	5K	Thunderstorm Wind (MG 50 kt)
05/22/11 17:00 CST	0	Source: Mesonet

Trees and power lines were reported blown down by damaging thunderstorm wind gusts measured at 50 knots (58 mph) in a swath from Ft. Atkinson to Jefferson.

---

### WALWORTH COUNTY --- 8.0 S WHITEWATER [42.71, -88.73]

05/22/11 17:01 CST	0	Hail (1.25 in)
05/22/11 17:01 CST	0	Source: Amateur Radio

---

### DODGE COUNTY --- HUSTISFORD [43.35, -88.60]

05/22/11 17:05 CST	0.50K	Thunderstorm Wind (EG 56 kt)
05/22/11 17:05 CST	0	Source: Public

A second round of severe thunderstorms affected Hustisford with damaging winds. This round downed trees that damaged a fence and did \$500 worth of damage to a house.

---

### WALWORTH COUNTY --- RICHMOND [42.72, -88.73], MILLARD [42.73, -88.62]

05/22/11 17:05 CST	0	Hail (1.75 in)
05/22/11 17:10 CST	0	Source: Amateur Radio



## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WALWORTH COUNTY --- WHITEWATER [42.83, -88.73]</b>				
	05/22/11 17:10 CST		5K	Thunderstorm Wind (EG 52 kt)
	05/22/11 17:10 CST		0	Source: Trained Spotter
A trained spotter reported severe thunderstorm wind gusts that downed trees and tree limbs in Whitewater.				
<b>WASHINGTON COUNTY --- HARTFORD [43.32, -88.38], ALLENTON [43.42, -88.33]</b>				
	05/22/11 17:12 CST		10K	Thunderstorm Wind (EG 56 kt)
	05/22/11 17:15 CST		0	Source: Public
Severe thunderstorms affected locations along a Hartford to Allenton line with damaging winds. The severe wind gusts downed trees that damaged a car and a house.				
<b>SAUK COUNTY --- 2.0 S REEDSBURG [43.50, -90.00]</b>				
	05/22/11 17:18 CST		0	Hail (0.75 in)
	05/22/11 17:18 CST		0	Source: Public
<b>WAUKESHA COUNTY --- 4.3 SW EAGLE [42.84, -88.54], 0.4 WNW NORTH PRAIRIE [42.93, -88.41]</b>				
	05/22/11 17:18 CST		0	Hail (1.75 in)
	05/22/11 17:30 CST		0	Source: Fire Department/Rescue
A severe thunderstorm produced hail up to 1.75 inches in diameter in a 4-mile wide swath from the southwest corner of Waukesha County northeast to North Prairie.				
<b>JEFFERSON COUNTY --- 3.7 NE OAK HILL [42.97, -88.55]</b>				
	05/22/11 17:27 CST		0	Hail (1.25 in)
	05/22/11 17:27 CST		0	Source: Official NWS Observations
<b>WASHINGTON COUNTY --- 4.0 E JACKSON [43.32, -88.09]</b>				
	05/22/11 17:35 CST		0	Hail (1.00 in)
	05/22/11 17:35 CST		0	Source: Public
<b>OZAUKEE COUNTY --- 0.3 N WAUBEKA [43.47, -87.98]</b>				
	05/22/11 17:37 CST		0	Hail (1.00 in)
	05/22/11 17:37 CST		0	Source: Public
<b>SHEBOYGAN COUNTY --- RANDOM LAKE [43.55, -87.97], 1.0 W CEDAR GROVE [43.57, -87.85]</b>				
	05/22/11 17:39 CST		0	Thunderstorm Wind (MG 52 kt)
	05/22/11 17:45 CST		0	Source: Trained Spotter
A trained spotter reported severe thunderstorm wind gusts that downed trees and tree limbs along a line from Random Lake to a mile west of Cedar Grove.				
<b>ROCK COUNTY --- 1.0 W BELOIT [42.52, -89.05], 4.0 W AFTON [42.60, -89.15]</b>				
	05/22/11 18:05 CST		0	Thunderstorm Wind (MG 52 kt)
	05/22/11 18:05 CST		0	Source: Amateur Radio
A ham radio operator reported severe thunderstorm wind gusts that downed trees and tree limbs along a line from near Beloit to Afton. The downed trees blocked Findley Road for a time.				
<b>WALWORTH COUNTY --- 2.0 S ELKHORN [42.64, -88.55]</b>				
	05/22/11 18:30 CST		10K	Thunderstorm Wind (EG 52 kt)
	05/22/11 18:30 CST		0	Source: Emergency Manager
A severe thunderstorm produced wind gusts that downed power lines, trees and tree limbs just south of Elkhorn. The downed trees and limbs damaged a few homes as well as a fence.				
<b>GREEN LAKE COUNTY --- 0.9 NE DALTON [43.66, -89.19], 1.3 NE DALTON [43.66, -89.18]</b>				
	05/22/11 18:33 CST		1K	Tornado (EF0, L: 0.36 mi , W: 30 yd)
	05/22/11 18:34 CST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
An EF0 tornado spun up about 2 miles south-southwest of Kingston about 900 ft southeast of the intersection of County Road H and State Highway 44 and traveled northeast approximately 1/3 mile before dissipating just south of State Highway 44. The tornado damaged a door on a shed, broke tree branches, and damaged a greenhouse. The EF-rating was based on DI 27(TH) DOD 2 with winds of 65 mph. The starting location was 43.658216/-89.185059 and the ending location was 43.661958/-89.179995. Average path width was about 15 yards.				

---

### WALWORTH COUNTY --- LYONS [42.65, -88.35]

05/22/11 18:40 CST	0	Thunderstorm Wind (EG 56 kt)
05/22/11 18:40 CST	0	Source: Newspaper

A severe thunderstorm produced damaging wind gusts that downed trees in the town of Lyons, including a large maple tree that was estimated to be 235 years old, the oldest tree in Walworth County.

---

### RACINE COUNTY --- 1.0 W BURLINGTON [42.67, -88.29], 3.0 E BURLINGTON [42.67, -88.21]

05/22/11 18:45 CST	0.15M	Thunderstorm Wind (EG 70 kt)
05/22/11 18:50 CST	0	Source: Newspaper

Severe thunderstorms produced damaging wind gusts estimated at 80 mph. Many power lines and trees were taken down by the strong winds, and several homes and cars were damaged.

---

### GREEN LAKE COUNTY --- 0.7 WSW MARKESAN [43.72, -88.99], 3.5 E MARKESAN [43.73, -88.91]

05/22/11 18:47 CST	5K	Tornado (EF0, L: 4.21 mi , W: 50 yd)
05/22/11 18:55 CST	0	Source: Emergency Manager

An EF0 tornado spun up about 0.3 miles northwest of downtown Markesan just west of State Highway 44 (Margaret Street) about 1/2 mile south of the intersection with County Road H and traveled east-northeast slightly over 4 miles before dissipating near Utley, about 1/4 mile west-northwest of the intersection of Utley Road and County Highway Q. The tornado broke tree branches, with some of them snapping a couple power lines. The EF-rating was based on DI 27(TH) DOD 2 with winds of 75 mph. The starting location was 43.715256/-88.992648 and the ending location was 43.728902/-88.910465. The average path width was about 30 yards.

---

### KENOSHA COUNTY --- 1.0 SW SILVER LAKE [42.54, -88.18], 1.0 NW PADDOCK LAKE [42.59, -88.13]

05/22/11 18:48 CST	0.10M	Thunderstorm Wind (EG 70 kt)
05/22/11 18:50 CST	0	Source: Newspaper

Severe thunderstorms produced damaging wind gusts estimated at 80 mph (70 knots). Many power lines and trees were taken down by the strong winds, and several homes and cars were damaged, including a home that had the roof taken off by the severe wind gusts.

---

### RACINE COUNTY --- UNION GROVE [42.68, -88.05]

05/22/11 18:54 CST	0	Thunderstorm Wind (MG 52 kt)
05/22/11 18:54 CST	0	Source: Mesonet

---

### MILWAUKEE COUNTY --- 2.0 W (MKE)MITCHELL APT MI [42.95, -87.94], (MKE)MITCHELL APT MI [42.95, -87.90]

05/22/11 19:02 CST	0	Thunderstorm Wind (MG 53 kt)
05/22/11 19:07 CST	0	Source: ASOS

A severe thunderstorm produced wind gusts measured up to 61 mph. The winds blew off a portion of the roof of a Day Inn at 13th Street and College Avenue.

A deep 500 mb low and associated surface low pressure tracked from eastern South Dakota into central Minnesota, lifting a warm front into Wisconsin during the early afternoon of May 22nd. Cool 500 mb temperatures and moist surface dew points in the lower 60s produced sufficient instability for thunderstorm development, with mean-layer CAPE of 2000 to 2500 J/KG. A mid-level jet streak of 50-60 knots produced 40-50 knots of deep-layer wind shear for supercell thunderstorm development, with low-level shear of 30 to 40 knots in the 0-1 km layer as a low-level jet strengthened enhancing the tornado potential, especially near the warm front.

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]</b>				
	06/08/11 06:20 CST	0		Marine Thunderstorm Wind (MG 35 kt)
	06/08/11 06:20 CST	0		Source: C-MAN Station
Small line of strong thunderstorms affected portions of the nearshore waters of Lake Michigan during the morning.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	06/08/11 20:30 CST	0		Marine Thunderstorm Wind (MG 44 kt)
	06/08/11 20:30 CST	0		Source: C-MAN Station
Thirty-two knot sustained winds at the time of the 44 knot wind gust.				
<b>PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]</b>				
	06/08/11 20:35 CST	0		Marine Thunderstorm Wind (MG 38 kt)
	06/08/11 20:50 CST	0		Source: C-MAN Station
Gusts exceeded 34 knots for 15 minutes.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	06/08/11 20:40 CST	0		Marine Thunderstorm Wind (MG 42 kt)
	06/08/11 20:50 CST	0		Source: C-MAN Station
Wind gusts exceeded 34 knots for 10 to 20 minutes.				
<b>A broken line of strong thunderstorms moved over the nearshore waters of Lake Michigan during the evening.</b>				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	06/15/11 06:30 CST	0		Marine High Wind (MG 58 kt)
	06/15/11 07:10 CST	0		Source: C-MAN Station
Wind gusts of 37 to 58 knots from 630 am CST to 710 am CST. Sustained winds of 53 knots with a gust to 58 knots at 650 am CST.				
<b>Strong winds caused by a wake low pressure affected the southern portion of the nearshore and open waters of Lake Michigan for 30 to 45 minutes.</b>				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	06/21/11 19:00 CST	0		Marine Thunderstorm Wind (MG 41 kt)
	06/21/11 19:00 CST	0		Source: C-MAN Station
<b>Several rounds of strong thunderstorms affected the near shore waters of Lake Michigan during the afternoon of June 21st. One line of thunderstorms resulted in strong winds at one of the marine observations stations.</b>				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	06/30/11 19:20 CST	0		Marine Thunderstorm Wind (MG 57 kt)
	06/30/11 20:10 CST	0		Source: C-MAN Station
Strong outflow winds affected the nearshore waters from Wind Point to Winthrop Harbor for about 50 minutes. The strongest measured gust was 57 knots at 1940 LST. At 1920 LST, sustained winds reached 39 knots, with a gust to 53 knots. Gusts exceeded 33 knots from 1920 LST until 2010 LST.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	06/30/11 19:30 CST	0		Marine Thunderstorm Wind (MG 34 kt)
	06/30/11 19:30 CST	0		Source: C-MAN Station
<b>Strong thunderstorms moving south over the near shore and open waters of Lake Michigan produced damaging outflow winds.</b>				
<b>WISCONSIN, Southeast</b>				

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>SAUK COUNTY --- 4.0 W REEDSBURG [43.53, -90.08]</b>				
	06/06/11 04:20 CST		0	Hail (2.50 in)
	06/06/11 04:20 CST		0	Source: Law Enforcement
<b>SAUK COUNTY --- LOGANVILLE [43.43, -90.03]</b>				
	06/06/11 04:40 CST		0	Hail (4.25 in)
	06/06/11 04:40 CST		0	Source: Public
<b>SAUK COUNTY --- 1.0 S NORTH FREEDOM [43.46, -89.87]</b>				
	06/06/11 04:58 CST		0	Hail (2.75 in)
	06/06/11 04:58 CST		0	Source: Law Enforcement
<b>COLUMBIA COUNTY --- 6.0 SW DEKORRA [43.41, -89.55]</b>				
	06/06/11 05:00 CST		0	Hail (1.00 in)
	06/06/11 05:00 CST		0	Source: Public
<b>SAUK COUNTY --- 1.0 S BARABOO [43.46, -89.73], 5.0 S BARABOO [43.40, -89.73]</b>				
	06/06/11 05:35 CST		0	Hail (1.75 in)
	06/06/11 05:35 CST		0	Source: Amateur Radio
<b>MARQUETTE COUNTY --- 2.0 S ENDEAVOR [43.67, -89.47]</b>				
	06/06/11 05:50 CST		0	Hail (1.00 in)
	06/06/11 05:50 CST		0	Source: Public
<b>COLUMBIA COUNTY --- ARLINGTON [43.33, -89.37]</b>				
	06/06/11 06:25 CST		0	Hail (1.00 in)
	06/06/11 06:25 CST		0	Source: Public
<b>MARQUETTE COUNTY --- 3.0 SW GLENOAK [43.72, -89.37]</b>				
	06/06/11 06:27 CST		0	Hail (1.25 in)
	06/06/11 06:27 CST		0	Source: Public
<b>DODGE COUNTY --- 1.0 E RUBICON [43.33, -88.45]</b>				
	06/06/11 08:19 CST		0	Hail (1.75 in)
	06/06/11 08:19 CST		0	Source: Amateur Radio
<b>GREEN LAKE COUNTY --- 2.0 W BERLIN [43.97, -88.97], BERLIN [43.97, -88.93]</b>				
	06/06/11 08:22 CST		0	Hail (1.00 in)
	06/06/11 08:25 CST		0	Source: Emergency Manager
<b>WASHINGTON COUNTY --- 1.5 SW HARTFORD [43.30, -88.40], 2.0 S SLINGER [43.30, -88.28]</b>				
	06/06/11 08:25 CST		0.10M	Hail (1.75 in)
	06/06/11 08:35 CST		0	Source: Emergency Manager
This hail swath was about 3 miles wide, resulting in numerous dented vehicles. Damage amount is rough estimate.				
<b>FOND DU LAC COUNTY --- 5.0 NE RIPON [43.88, -88.76], 6.0 NE ROSENDALE [43.86, -88.59]</b>				
	06/06/11 08:45 CST		0	Hail (1.00 in)
	06/06/11 09:10 CST		0	Source: Public
This hail swath was about 3 miles wide.				
<b>FOND DU LAC COUNTY --- 2.0 NW EDEN [43.72, -88.40]</b>				
	06/06/11 09:18 CST		0	Hail (1.00 in)
	06/06/11 09:18 CST		0	Source: Public

Low level warm air advection and moisture transport produced increasing instability over the region as it pushed a surface warm front toward Wisconsin during the early morning hours of June 6th. A cluster of strong to severe elevated thunderstorms formed on the

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
leading edge of the strengthening low-level jet as it veered south-southwest, focusing on southern Wisconsin during the early daylight hours. Moderate elevated instability...steepening mid-level lapse rates and increasing effective bulk shear up to 50 knots supported the development of severe thunderstorms with large hail that affected mainly the northern half of the Milwaukee/Sullivan County Warning Area.				
<b>(WI-Z062) IOWA, (WI-Z067) LAFAYETTE</b>				
	06/07/11 11:00 CST		0	Heat
	06/07/11 19:00 CST		0	
A warm and humid air mass settled over southern Wisconsin, with high temperatures reaching the middle to upper 90s. Dew points initially were in the mid to upper 60s, and then fell into the upper 50s during the afternoon. The combination of the hot temperatures and moist dew points produced heat index values of 100 to 104 over southern portions of Iowa County and northern Lafayette County. Heat index values ranged between 92 and 98 across the remainder of southern Wisconsin.				
<b>FOND DU LAC COUNTY --- 1.0 S FOND DU LAC [43.77, -88.45]</b>				
	06/08/11 04:50 CST		0	Hail (0.75 in)
	06/08/11 04:50 CST		0	Source: Emergency Manager
<b>WASHINGTON COUNTY --- SLINGER [43.33, -88.28]</b>				
	06/08/11 06:50 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 06:50 CST		0	Source: Law Enforcement
Trees were blown over, large tree branches were broken, and some power lines were brought down.				
<b>LAFAYETTE COUNTY --- ARGYLE [42.70, -89.87]</b>				
	06/08/11 07:10 CST		0	Hail (0.75 in)
	06/08/11 07:10 CST		0	Source: Post Office
<b>JEFFERSON COUNTY --- JOHNSON CREEK [43.08, -88.77]</b>				
	06/08/11 08:22 CST		0	Hail (0.75 in)
	06/08/11 08:22 CST		0	Source: Trained Spotter
<b>DODGE COUNTY --- 3.0 SE LEBANON [43.22, -88.59]</b>				
	06/08/11 08:30 CST		0	Hail (0.75 in)
	06/08/11 08:30 CST		0	Source: Trained Spotter
<b>WASHINGTON COUNTY --- 3.0 N HARTFORD [43.36, -88.38]</b>				
	06/08/11 08:46 CST		0	Hail (1.00 in)
	06/08/11 08:49 CST		0	Source: Trained Spotter
Some vehicles received minor denting.				
<b>GREEN COUNTY --- MONROE [42.60, -89.63], ALBANY [42.70, -89.43]</b>				
	06/08/11 09:20 CST		0.20M	Thunderstorm Wind (EG 61 kt)
	06/08/11 09:30 CST		0	Source: Law Enforcement
This was a "heat burst" - generated by a decaying convective rain shower band which resulted in evaporation of most of the rain that caused gusty southwest winds and rising temperatures of 10 to 20 degrees F. Large trees were blown down in Albany, and 2 buildings in Monroe were damaged. Additionally, there were scattered reports of broken power poles and power lines. The damage swath was about 5 miles wide.				
<b>ROCK COUNTY --- 2.0 SW EVANSVILLE [42.76, -89.33], EDGERTON [42.83, -89.07]</b>				
	06/08/11 09:35 CST		50K	Thunderstorm Wind (EG 61 kt)
	06/08/11 10:00 CST		0	Source: Law Enforcement
This was a "heat burst" - generated by a decaying convective rain shower band which resulted in evaporation of most of the rain that caused gusty southwest winds and rising temperatures of 10 to 20 degrees F. Two trailers in Edgerton were blown over and damaged: one was construction trailer and the other a semi-truck trailer. Also - a racetrack concession stand was demolished by the winds. Additionally, a few large trees were blown down and broken tree limbs knocked some power lines down. The damage swath was about 5 miles wide.				
Increasing warm air advection and moisture transport on a 50 to 60 knot low-level jet, with increasing instability under steepening mid-level lapse rates, produced elevated thunderstorms with large hail during the early morning hours of June 8th. As the nocturnal low level inversion mixed out with daytime heating during the mid-morning hours, the storms became surface based, with damaging				

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
wind gusts as well as large hail. Additionally, the elevated nature of the showers and thunderstorms, especially in far southern Wisconsin, caused the rain underneath to evaporate before reaching the ground. The evaporated rain cooled the air below the cloud base and caused it to accelerate toward the ground, creating isolated heat bursts in Green and Rock counties with damaging wind gusts that downed trees and power lines, and also rapidly raised air temperatures 10 to 20 degrees F.				
<b>IOWA COUNTY --- 7.0 N HIGHLAND [43.15, -90.38]</b>				
	06/08/11 16:28 CST		0	Hail (1.00 in)
	06/08/11 16:28 CST		0	Source: Trained Spotter
<b>IOWA COUNTY --- 7.0 N HIGHLAND [43.15, -90.38]</b>				
	06/08/11 17:12 CST		0	Hail (1.00 in)
	06/08/11 17:12 CST		0	Source: Law Enforcement
<b>IOWA COUNTY --- 7.0 N HIGHLAND [43.15, -90.38]</b>				
	06/08/11 17:13 CST		0	Hail (2.50 in)
	06/08/11 17:13 CST		0	Source: Broadcast Media
The report was received from WMTV-15 in Madison.				
<b>IOWA COUNTY --- 7.0 N HIGHLAND [43.15, -90.38]</b>				
	06/08/11 17:14 CST		0	Hail (1.75 in)
	06/08/11 17:22 CST		0	Source: Trained Spotter
<b>IOWA COUNTY --- 1.0 NNE DODGEVILLE [42.98, -90.12]</b>				
	06/08/11 17:26 CST		0	Funnel Cloud
	06/08/11 17:26 CST		0	Source: Trained Spotter
<b>SAUK COUNTY --- 2.0 N PLAIN [43.31, -90.05]</b>				
	06/08/11 17:30 CST		0	Hail (1.50 in)
	06/08/11 17:30 CST		0	Source: Public
<b>MARQUETTE COUNTY --- 4.0 NE MONTELLO [43.84, -89.26]</b>				
	06/08/11 17:45 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 17:45 CST		0	Source: Newspaper
Several large trees were blown down.				
<b>MARQUETTE COUNTY --- BRIGGSVILLE [43.65, -89.58]</b>				
	06/08/11 18:05 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 18:05 CST		0	Source: Newspaper
Several trees were uprooted.				
<b>IOWA COUNTY --- 3.0 NW BARNEVELD [43.05, -89.94]</b>				
	06/08/11 18:10 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 18:10 CST		0	Source: Trained Spotter
Several large trees were uprooted and large branches were broken.				
<b>IOWA COUNTY --- BARNEVELD [43.02, -89.90]</b>				
	06/08/11 18:14 CST		0	Hail (0.75 in)
	06/08/11 18:14 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- 2.0 WNW MT HOREB [43.01, -89.77], MT HOREB [43.00, -89.73]</b>				
	06/08/11 18:15 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 18:20 CST		0	Source: Newspaper
Powerful thunderstorm winds pushed over several large trees, and broken tree branches snapped a few power-lines in a 2 to 3 mile wide swath. A business's tower was toppled into its parking lot.				

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>GREEN LAKE COUNTY --- DALTON [43.65, -89.20], GREEN LAKE [43.83, -88.95]</b>				
	06/08/11 18:19 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 18:37 CST		0	Source: Fire Department/Rescue
This downburst swath was about 10 miles wide. Trees and power lines were brought down.				
<b>DANE COUNTY --- 2.0 S MT HOREB [42.97, -89.73]</b>				
	06/08/11 18:20 CST		0	Hail (2.75 in)
	06/08/11 18:20 CST		0	Source: Broadcast Media
This report was received from WMTV-15 in Madison.				
<b>GREEN LAKE COUNTY --- MARQUETTE [43.75, -89.14]</b>				
	06/08/11 18:23 CST		0	Hail (1.00 in)
	06/08/11 18:23 CST		0	Source: Emergency Manager
<b>DANE COUNTY --- 4.0 WSW VERONA [42.96, -89.60], 0.5 NW VERONA [42.99, -89.54]</b>				
	06/08/11 18:38 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 18:42 CST		0	Source: Trained Spotter
Downburst tree damage was caused by downdrafts in a super-cell thunderstorm that spun up a nearby tornado that passed through the south side of Verona to north of McFarland.				
<b>IOWA COUNTY --- 4.0 SW MINERAL PT [42.81, -90.24]</b>				
	06/08/11 18:40 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 18:40 CST		0	Source: Public
A few large trees were blown over and large branches knocked down.				
<b>DANE COUNTY --- 2.7 W VERONA [42.98, -89.58], 1.6 WNW HOPE [43.06, -89.26]</b>				
	06/08/11 18:41 CST		0.10M	Tornado (EF0, L: 17.15 mi , W: 100 yd)
	06/08/11 19:02 CST		0	Source: NWS Storm Survey
This tornado spun up southwest of Verona about 1/2 mile southwest of the intersection of CTH G and Sugar River Road, and traveled east-northeast to about 3 miles northeast of McFarland about 1.5 miles east-northeast of the intersection of Interstate 39/90 and STH 12/18. The damage path was sporadic. On the south side of Verona, numerous trees were uprooted, a garage was crushed by a fallen tree, and 3 vehicles were damaged by fallen trees. Several power lines were pulled down by broken tree branches. Scattered uprooted trees and/or broken tree branches were seen along the remainder of the tornado path. However, most of the damage occurred in the Verona area. Maximum winds in this EF1 tornado were about 95 mph based on DI 27 (TH), DOD 3. The actual starting location was 42.98002/-89.58399 and the ending location was 43.05538/-89.26050. The average path width was about 70 yards.				
<b>FOND DU LAC COUNTY --- 5.0 NNE ROSENDALE [43.87, -88.64]</b>				
	06/08/11 18:45 CST		0	Hail (1.00 in)
	06/08/11 18:45 CST		0	Source: Public
<b>DANE COUNTY --- MONONA [43.07, -89.32]</b>				
	06/08/11 18:47 CST		0	Hail (1.00 in)
	06/08/11 18:47 CST		0	Source: Trained Spotter
<b>DANE COUNTY --- 3.0 NE MC FARLAND [43.05, -89.24]</b>				
	06/08/11 18:50 CST		0	Hail (1.75 in)
	06/08/11 18:50 CST		0	Source: Law Enforcement
<b>IOWA COUNTY --- REWEY [42.85, -90.40]</b>				
	06/08/11 18:50 CST		0	Thunderstorm Wind (EG 70 kt)
	06/08/11 18:50 CST		0	Source: Law Enforcement
A couple of utility poles were pushed over by powerful thunderstorm wind gusts.				
<b>DANE COUNTY --- BELLEVILLE [42.85, -89.53]</b>				

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/08/11 18:54 CST		0	Thunderstorm Wind (EG 70 kt)
	06/08/11 18:54 CST		0	Source: Trained Spotter

Several large trees were uprooted as the rain and small hail moved horizontally.

---

### DANE COUNTY --- 1.0 E VERONA [42.98, -89.51]

06/08/11 18:55 CST	0	Hail (1.75 in)
06/08/11 18:55 CST	0	Source: Law Enforcement

---

### DANE COUNTY --- MC FARLAND [43.02, -89.28]

06/08/11 18:55 CST	0	Thunderstorm Wind (MG 61 kt)
06/08/11 18:55 CST	0	Source: Trained Spotter

A gust of 70 mph was measured on a home weather station. Numerous branches were knocked down in the McFarland area. The gusts were probably related to the rear flank downdraft of the supercell tornado that tracked just northeast of McFarland around 2000 CST (8 pm CDT).

---

### DANE COUNTY --- MC FARLAND [43.02, -89.28]

06/08/11 18:55 CST	0	Thunderstorm Wind (MG 61 kt)
06/08/11 18:55 CST	0	Source: Trained Spotter

Several large trees were uprooted by powerful thunderstorm winds.

---

### DANE COUNTY --- SHOREWOOD HILLS [43.08, -89.47]

06/08/11 18:56 CST	0	Hail (0.88 in)
06/08/11 18:56 CST	0	Source: Trained Spotter

---

### DANE COUNTY --- 2.0 W DOWNTOWN MADISON [43.07, -89.46]

06/08/11 19:00 CST	0	Hail (1.50 in)
06/08/11 19:00 CST	0	Source: Broadcast Media

---

### GREEN COUNTY --- NEW GLARUS [42.82, -89.63]

06/08/11 19:00 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:05 CST	0	Source: Newspaper

Powerful thunderstorm winds, accompanied by heavy rains, uprooted several large trees in and around New Glarus, and broken tree branches snapped several power lines. in New Glarus, a home's roof and a backyard wooden deck suffered minor damage when a large tree fell on it.

---

### ROCK COUNTY --- EVANSVILLE [42.78, -89.30]

06/08/11 19:08 CST	0	Thunderstorm Wind (MG 51 kt)
06/08/11 19:08 CST	0	Source: Trained Spotter

Officials reported up to 40 large trees uprooted, and numerous branches broken by powerful thunderstorm winds.

---

### GREEN COUNTY --- NEW GLARUS [42.82, -89.63]

06/08/11 19:10 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:15 CST	0	Source: Newspaper

Powerful thunderstorm winds, accompanied by heavy rains, uprooted several large trees in and around Monticello, and broken tree branches snapped several power lines.

---

### DANE COUNTY --- 3.0 NNW ALBION [42.92, -89.09]

06/08/11 19:13 CST	50K	Thunderstorm Wind (EG 70 kt)
06/08/11 19:13 CST	0	Source: NWS Storm Survey

A grain bin was destroyed and and several large trees were uprooted.

---

### DANE COUNTY --- OREGON [42.93, -89.38], STOUGHTON [42.92, -89.22]

06/08/11 19:15 CST	0	Thunderstorm Wind (EG 70 kt)
06/08/11 19:25 CST	0	Source: Newspaper



## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Powerful thunderstorm winds pushed over dozens of large trees, and broken tree branches snapped several power-lines in a 5-mile-wide swath. In Stoughton, the winds knocked over an empty semi-trailer which then impacted and damaged two other trailers. Also, a road sign in Stoughton was pushed over at a 45-degree angle.				

---

### GREEN COUNTY --- DAYTON [42.82, -89.50], ALBANY [42.70, -89.43]

06/08/11 19:15 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:25 CST	0	Source: Trained Spotter

Dozens of large trees were uprooted by powerful thunderstorm winds and broken tree branches in a 3-mile wide swath from 3 miles southeast of Dayton to the Albany area. Near the intersection of STH 59 and CTH F, a barn, built in the 1940s, was pushed over by the winds. A hanger at the Albany Airport on STH 59 was damaged by the winds. A few miles north-northwest of Albany the winds damaged some siding and the roof of a barn.

---

### DODGE COUNTY --- FOX LAKE [43.57, -88.90]

06/08/11 19:16 CST	0	Hail (0.88 in)
06/08/11 19:16 CST	0	Source: Trained Spotter

---

### DANE COUNTY --- 2.0 WSW SUN PRAIRIE [43.17, -89.24], SUN PRAIRIE [43.18, -89.20]

06/08/11 19:17 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:25 CST	0	Source: Trained Spotter

Powerful thunderstorm winds pushed over several large trees, and a flag pole was pushed down.

---

### GREEN COUNTY --- 2.0 SSW ALBANY [42.67, -89.45]

06/08/11 19:20 CST	3K	Lightning
06/08/11 19:20 CST	0	Source: Newspaper

Lightning struck a power transformer which then caught fire.

---

### ROCK COUNTY --- EVANSVILLE [42.78, -89.30], MILTON [42.77, -88.95]

06/08/11 19:22 CST	0	Thunderstorm Wind (EG 70 kt)
06/08/11 19:45 CST	0	Source: Trained Spotter

Powerful thunderstorm winds pushed over dozens of large trees, and broken tree branches snapped several power lines in a 7-mile wide swath from Evansville to Milton. In the Township of Milton, on STH 59, the skeleton of a old barn was blown down.

---

### GREEN COUNTY --- BRODHEAD [42.62, -89.37]

06/08/11 19:25 CST	0	Thunderstorm Wind (EG 70 kt)
06/08/11 19:25 CST	0	Source: Newspaper

In the Brodhead area, powerful thunderstorm winds uprooted a few dozen trees and broken branches fell on and snapped several power lines.

---

### JEFFERSON COUNTY --- 2.0 NNE CAMBRIDGE [43.03, -88.98], JEFFERSON [43.00, -88.80]

06/08/11 19:25 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:30 CST	0	Source: Amateur Radio

Powerful thunderstorm winds raked the area from around Cambridge east to the Jefferson area. Dozens of large trees were uprooted, and a number of power-lines and power-poles were snapped by broken tree branches. In Jefferson, three buildings were damaged: one of them had extensive damage to its roof and interior ceilings, a business's outdoor sign was damaged, and motel had a roof peel and several imploded windows. A fence in a subdivision east of Cambridge was blown down. A few roads were temporarily closed until tree debris was removed.

---

### JEFFERSON COUNTY --- LAKE MILLS [43.08, -88.90]

06/08/11 19:25 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:30 CST	0	Source: Newspaper

Powerful thunderstorm wind gusts toppled several large trees. One of the trees crashed onto a home and resulted in minor damage.

---

### JEFFERSON COUNTY --- 5.0 SW FT ATKINSON [42.88, -88.92], FT ATKINSON [42.93, -88.85]

06/08/11 19:30 CST	0	Thunderstorm Wind (EG 65 kt)
06/08/11 19:30 CST	0	Source: Newspaper

Powerful thunderstorm wind gusts toppled several large trees. One of the trees crashed onto and damaged a 5th wheel camper southwest of Ft. Atkinson. Elsewhere in the Ft. Atkinson area, a roof on a home's 3-season room was ripped off by the powerful winds, and another home received moderate damage when a large tree punctured down through the roof onto a bathtub.

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>JEFFERSON COUNTY --- HEBRON [42.93, -88.70]</b>				
	06/08/11 19:35 CST		0	Thunderstorm Wind (EG 70 kt)
	06/08/11 19:35 CST		0	Source: NWS Employee
Powerful thunderstorm winds pushed over several large trees.				
<b>WALWORTH COUNTY --- 2.0 W DELAVAN [42.63, -88.67]</b>				
	06/08/11 19:35 CST		0	Thunderstorm Wind (EG 70 kt)
	06/08/11 19:35 CST		0	Source: Amateur Radio
Powerful thunderstorm winds pushed over several large trees. Roof damage was inflicted on some buildings, but the extent is unknown.				
<b>GREEN COUNTY --- MONROE [42.60, -89.63]</b>				
	06/08/11 19:45 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 19:50 CST		0	Source: Emergency Manager
Powerful thunderstorm winds, accompanied by heavy rains, uprooted several large trees and broken tree branches snapped several power lines.				
<b>WALWORTH COUNTY --- LAKE GENEVA [42.60, -88.43]</b>				
	06/08/11 19:54 CST		0	Thunderstorm Wind (MG 54 kt)
	06/08/11 19:54 CST		0	Source: Amateur Radio
Powerful thunderstorm winds pushed over several large trees.				
<b>WALWORTH COUNTY --- 2.0 N DARIEN [42.63, -88.70]</b>				
	06/08/11 19:56 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 19:56 CST		0	Source: Amateur Radio
Powerful thunderstorm winds pushed over several large trees.				
<b>ROCK COUNTY --- 5.0 NE CLINTON [42.62, -88.80]</b>				
	06/08/11 20:03 CST		0	Thunderstorm Wind (EG 70 kt)
	06/08/11 20:03 CST		0	Source: Trained Spotter
Powerful thunderstorm winds toppled several large trees.				
<b>WAUKESHA COUNTY --- 1.0 NE MUSKEGO [42.91, -88.12]</b>				
	06/08/11 20:10 CST		0	Thunderstorm Wind (EG 65 kt)
	06/08/11 20:10 CST		0	Source: Trained Spotter
Powerful thunderstorm winds toppled several large trees. A few pieces of siding was removed from a home.				
<b>JEFFERSON COUNTY --- 3.7 NE OAK HILL [42.97, -88.55]</b>				
	06/08/11 20:14 CST		0	Thunderstorm Wind (EG 52 kt)
	06/08/11 20:14 CST		0	Source: NWS Employee
Powerful thunderstorm winds broke numerous large tree branches and toppled several large trees in the vicinity of the Milwaukee/Sullivan WFO.				
<b>RACINE COUNTY --- BURLINGTON [42.67, -88.27]</b>				
	06/08/11 20:20 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 20:20 CST		0	Source: Newspaper
Strong winds knocked large branches out of trees and uprooted a couple dozen large trees. A few power-lines were snapped by the broken branches. Two roads were blocked by the tree debris.				
<b>MILWAUKEE COUNTY --- WEST ALLIS [43.00, -87.97]</b>				
	06/08/11 20:23 CST		0	Hail (1.00 in)
	06/08/11 20:23 CST		0	Source: Amateur Radio
<b>RACINE COUNTY --- 4.0 NW STURTEVANT [42.74, -87.96], DOWNTOWN RACINE [42.72, -87.80]</b>				

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/08/11 20:30 CST		0	Thunderstorm Wind (EG 56 kt)
	06/08/11 20:45 CST	2	0	Source: Amateur Radio

A 5-mile wide swath of thunderstorm wind damage occurred from the Interstate-94 area west of Racine to the city of Racine. Semi-tractor trailers were blown over on Interstate-94 at STH 11 and CTH K, resulting in the injury of two drivers. A 33-foot long sailboat, that was still on land and located on the shore of the Root River near downtown Racine, was blown over and damaged. Otherwise a couple dozen large trees were uprooted in the swath and there were reports of many large broken tree branches.

---

### MILWAUKEE COUNTY --- 2.1 WSW WEST ALLIS [42.99, -88.01], 1.0 W CUDAHY [42.95, -87.87]

06/08/11 20:31 CST	0	Thunderstorm Wind (MG 57 kt)
06/08/11 20:45 CST	0	Source: Trained Spotter

Strong winds knocked large branches out of trees and toppled several large trees. Some power-lines were snapped by tree debris. A trained spotter in Cudahy had a measured wind gust of 66 mph.

---

### MILWAUKEE COUNTY --- GREENFIELD [42.95, -88.00]

06/08/11 20:45 CST	0	Thunderstorm Wind (EG 56 kt)
06/08/11 20:45 CST	0	Source: Trained Spotter

Strong winds knocked large branches out of trees and uprooted a couple large trees.

Forcing along an advancing cold front moving into a warm, moist unstable air mass over the region produced severe thunderstorms with a tornado, damaging winds and large hail over south-central and southeast Wisconsin during the evening hours of June 8th. The combination of instability, with surface-based CAPE of 3000 J/kg, and 0 to 6 km bulk shear of 40 knots produced supercell thunderstorms, with one of the cells developing an EF1 tornado over central Dane County that uprooted trees, felled power-lines, damaged three vehicles and crushed a garage. A cluster of supercell thunderstorms from Lafayette into Dane County then congealed into a bowing line that moved due east and created damaging wind gusts of 60 to 80 mph across much of the area along and south of Interstate-94. At the height of the event, over 27,000 customers had no electric power in Southeast Wisconsin, and probably another 15 to 20,000 customers in south-central Wisconsin lost power.

---

### (WI-Z072) KENOSHA

06/15/11 06:25 CST	10K	High Wind (MAX 58 kt)
06/15/11 07:00 CST	0	

Focused warm air advection ahead of a short wave trough produced showers and thunderstorms that moved across southern Wisconsin early in the morning of June 15th. A wake low developed behind the departing line of showers and storms, creating damaging wind gusts between 40 and 70 mph (35 to 61 knots) in eastern Kenosha County within 2 to 3 miles of the Lake Michigan shore. The marine observation site at Kenosha Harbor clocked a 67 mph (58 knot) wind gust, while the Kenosha Municipal Airport recorded a gust of 45 mph (39 knots). The gusty winds blew down trees and a few power lines in the city of Kenosha, and felled trees that blocked some roads in Pleasant Prairie.

---

### DODGE COUNTY --- 2.5 NE HERMAN CENTER [43.45, -88.44]

06/19/11 14:55 CST	0	Tornado (EF0, L: 0.10 mi , W: 20 yd)
06/19/11 14:55 CST	0	Source: Trained Spotter

A trained storm spotter witnessed a brief EF0 tornado that touched down about 2.7 miles northeast of Herman Center in Dodge County, just north of the intersection of County Road DW and Freedom Road. The tornado traveled less than one-tenth of a mile before dissipating. The maximum path width of the tornado was 20 yards with an average path width of 10 yards. The spotter noted small tree limbs snapped off, and tall grass flattened in a swirl pattern by the winds from the tornado. The EF0 rating was determined by using DI 27(TH), DOD1 with winds of 65 mph. The exact location was 43.4497/-88.44074.

Lift generated by a short wave acted on a moist and unstable air mass to produce afternoon thunderstorms over portions of southern Wisconsin. While overall conditions were not favorable for supercell development, high 0 to 3km helicity and high 0-3km CAPE were sufficient to increase the stretching potential of any thunderstorm updraft to produce non-supercell tornadoes. A brief EF0 tornado touched down about 5 miles south of Theresa in Dodge County, breaking off small tree limbs and flattening tall grass in a swirl pattern.

---

### JEFFERSON COUNTY --- 2.7 SE PALMYRA [42.85, -88.56]

06/21/11 13:45 CST	0	Thunderstorm Wind (EG 56 kt)
06/21/11 13:45 CST	0	Source: NWS Employee

A National Weather Service employee reported 12 inch and larger tree limbs blown down by thunderstorm wind gusts estimated at 65 mph (56 knots).

---

### WAUKESHA COUNTY --- 4.0 NW EAGLE [42.92, -88.53], 2.0 NE NORTH LAKE [43.19, -88.34]

06/21/11 13:50 CST	0.28M	Thunderstorm Wind (EG 96 kt)
06/21/11 14:13 CST	1	Source: Law Enforcement

## Storm Data and Unusual Weather Phenomena - June 2011

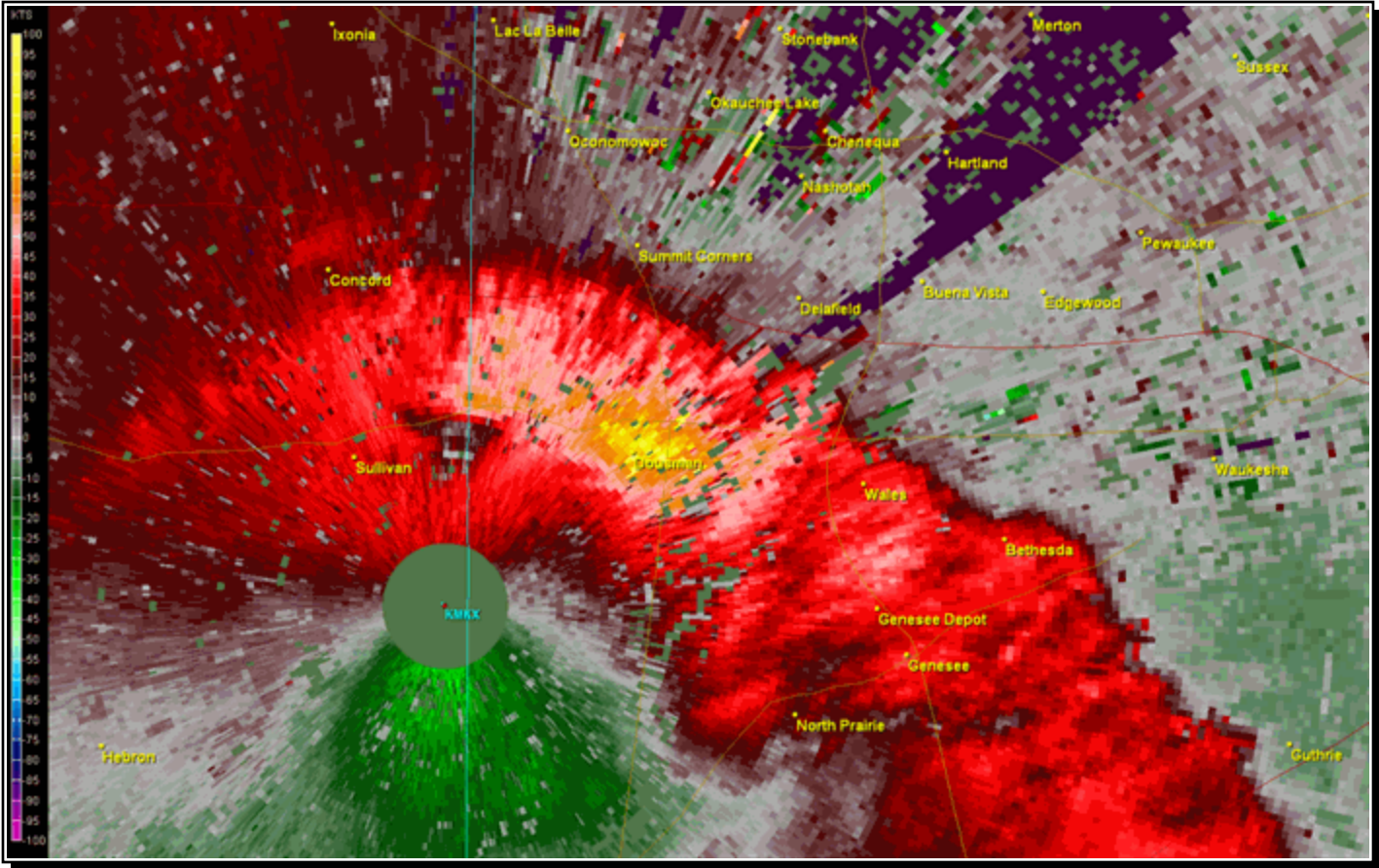
Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A 2-mile wide swath of damage was caused by a microburst associated with a bowing line of severe thunderstorms that tracked from southwest to northeast across a large portion of Waukesha County. Wind gusts estimated up to between 100 to 110 mph (87 to 96 knots) dropped thousands of trees, damaged homes and barns and blew down power lines that left 10,000 customers without power in Waukesha County. One person was injured by airborne tree debris near the Pewaukee and Delafield town borders. A semi-trailer truck was blown over on Interstate-94 in Waukesha County, while two other high-profile vehicles were nearly blown over by the strong winds, but concrete construction barriers saved the vehicles from being completely blown over.				
<b>WAUKESHA COUNTY --- 2.0 SE EAGLE [42.86, -88.44]</b>				
	06/21/11 13:54 CST		0	Thunderstorm Wind (MG 69 kt)
	06/21/11 13:54 CST		0	Source: Trained Spotter
<b>FOND DU LAC COUNTY --- 4.4 WSW ALTO [43.67, -88.87], 3.7 SSW FAIRWATER [43.70, -88.89]</b>				
	06/21/11 14:21 CST		30K	Tornado (EF1, L: 2.61 mi , W: 150 yd)
	06/21/11 14:31 CST		0	Source: NWS Storm Survey
This EF1 tornado touched down about 4.4 miles west-southwest of the town of Alto in Fond Du Lac County, on Marshview Road, about one-third of a mile north of Lake Maria Road, and tracked about 2.6 miles to the north-northwest before crossing into Green Lake County, about 3.7 miles south-southwest of Fairwater, at County Road S approximately 1/4 mile east of Schure Road. This tornado exhibited three separate damage tracks within the path, suggesting three separate vortices formed and dissipated during the life span of the tornado. The average path width was 75 yards, with a maximum path width of 105 yards. The tornado blew over trees and flattened a pole shed. The EF1 rating was determined by using DI 21(MBS) DOD5 LB to EXP with estimated winds speeds of 105 mph. The exact starting point was 43.77112/-88.88480 and the exact ending point was 43.78370/-88.88558.				
<b>GREEN LAKE COUNTY --- 5.0 E MARKESAN [43.72, -88.88]</b>				
	06/21/11 14:28 CST		0	Thunderstorm Wind (EG 50 kt)
	06/21/11 14:28 CST		0	Source: Emergency Manager
The Green Lake County Emergency Manager reported trees blown down, most likely from the forward flank downdraft from the tornadic thunderstorm that moved through the extreme eastern sections of the county.				
<b>GREEN LAKE COUNTY --- 4.9 ESE MARKESAN [43.70, -88.89], 3.7 E MARKESAN [43.73, -88.91]</b>				
	06/21/11 14:31 CST		5K	Tornado (EF1, L: 2.16 mi , W: 150 yd)
	06/21/11 14:33 CST		0	Source: NWS Storm Survey
This EF1 tornado crossed into Green Lake County from Fond Du Lac County, about 4.9 miles east-southeast of Markesan, at County Road S approximately 1/4 mile east of Schure Road, and traveled a little over 2 miles to the north-northwest before dissipating approximately 3.7 miles east of Markesan, about 1200 feet northwest of the intersection of Utley Road and County Trunk Highway Q. The average path width was 75 yards, with a maximum path width of 105 yards. The tornado blew over trees and blew a door and a side panel off a pole shed. Roof shingles were also blown off of several buildings, with one home having minor roof, gutter and awning damage. The EF1 rating was determined by using DI 27(TH) DOD4 LB toward EXP with estimated winds speeds of 100 mph. The exact starting point was 43.78370/-88.88558 and the exact ending point was 43.79798/-88.91194.				
<b>FOND DU LAC COUNTY --- 2.3 NW FAIRWATER [43.77, -88.88], 2.9 NW FAIRWATER [43.78, -88.89]</b>				
	06/21/11 14:36 CST		15K	Tornado (EF1, L: 0.87 mi , W: 100 yd)
	06/21/11 14:38 CST		0	Source: NWS Storm Survey
This EF1 tornado touched down approximately 2.3 miles of northwest of Fairwater, about 200 feet southeast of the intersection of Watson Road and Searl Road/County Line Road, and traveled nearly parallel to County Line Road for almost a mile to the north-northwest before crossing County Line Road about 2000 feet north of Carter Road into Green Lake County. The average path width was 60 yards, with a maximum path width of 100 yards. The tornado uprooted trees and tore away a wall and part of the roof of a barn. The EF1 rating was determined by using DI 1(SBO) DOD4 EXP toward UB with estimated winds speeds of 95 mph. The exact starting point was 43.66761/-88.86583 and the exact ending point was 43.70275/-88.88517.				
<b>GREEN LAKE COUNTY --- 4.5 SE GREEN LAKE [43.78, -88.89], 2.9 SE GREEN LAKE [43.80, -88.91]</b>				
	06/21/11 14:38 CST		2K	Tornado (EF1, L: 1.64 mi , W: 100 yd)
	06/21/11 14:40 CST		0	Source: NWS Storm Survey
This EF1 tornado entered into Green Lake County from Fond Du Lac County at Searl Road/ County Line Road about 2000 feet north of Carter Road into Green Lake County. The average path width was 60 yards, with a maximum path width of 100 yards. The tornado uprooted trees and tore away metal panels off the roof of a pole shed. The EF1 rating was determined by using DI 21(MBS) DOD 3 EXP with estimated winds speeds of 95 mph. The exact starting point was 43.70275/-88.88517 and the exact ending point was 43.72962/-88.90737.				
<b>GREEN LAKE COUNTY --- 5.0 S BERLIN [43.90, -88.93]</b>				
	06/21/11 15:14 CST		0	Funnel Cloud
	06/21/11 15:14 CST		0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>RACINE COUNTY --- 2.0 E BURLINGTON [42.67, -88.23]</b>				
	06/21/11 18:03 CST		0	Hail (1.25 in)
	06/21/11 18:03 CST		0	Source: Trained Spotter
A trained spotter reported large hail, estimated to be 1.25 inches in diameter, that fell near a Y.M.C.A. camp east of Burlington.				
<b>DANE COUNTY --- 4.0 SSW SUN PRAIRIE [43.13, -89.23]</b>				
	06/21/11 18:27 CST		0	Hail (1.00 in)
	06/21/11 18:27 CST		0	Source: Trained Spotter
<b>WAUKESHA COUNTY --- 0.4 SW MARCY [43.10, -88.13], 2.5 N ELM GROVE [43.09, -88.07], 0.8 SSE ELM GROVE [43.04, -88.07], 1.1 SSE BROOKFIELD [43.06, -88.14]</b>				
	06/21/11 19:15 CST		5K	Flash Flood (due to Heavy Rain)
	06/21/11 23:00 CST		0	Source: Law Enforcement
Heavy downpours of rain, associated with a line of strong to severe thunderstorms that crossed southern Wisconsin during the afternoon and evening hours of June 21st, dropped between 1.5 inches and 2 inches of rain over a 1 to 2 hour time period. The heavy rains caused flash flooding that covered some roads with 1 to 2 feet of water. Law enforcement officials reported the intersection of Lily Road and Burleigh Road in Brookfield, was closed, as were many other roads in the surrounding area, due to the high water covering the roadways. Some basement flooding was also reported.				
<b>MILWAUKEE COUNTY --- 1.2 NE FRANKLIN [42.88, -88.06], 1.0 NE NORTH MILWAUKEE [43.11, -87.94], 0.2 S SHOREWOOD [43.10, -87.88], 0.9 SSW FRANKLIN ARPT [42.86, -88.01]</b>				
	06/21/11 19:30 CST		0.50K	Flash Flood (due to Heavy Rain)
	06/21/11 23:00 CST		0	Source: Law Enforcement
Heavy downpours of rain, associated with a line of strong to severe thunderstorms that crossed southern Wisconsin during the afternoon and evening hours of June 21st, dropped between 1.5 inches and 2 inches of rain over a 1 hour to a 1 1/2 hour time period. The heavy rain caused flash flooding that covered some roads with 1 to 2 feet of water. One lane of Highway 100 in Franklin was closed due to the high water, with a vehicle stalled in water on National Avenue and the Root River Parkway in West Allis.				
<b>WALWORTH COUNTY --- 4.0 SE EAST TROY [42.74, -88.34]</b>				
	06/21/11 19:50 CST		0	Thunderstorm Wind (EG 52 kt)
	06/21/11 19:50 CST		0	Source: Trained Spotter
A trained spotter reported large tree branches knocked down by thunderstorm wind gusts estimated to be as high as 60 mph (52 knots).				
<b>WAUKESHA COUNTY --- MUKWONAGO [42.87, -88.33], BROOKFIELD [43.07, -88.15]</b>				
	06/21/11 19:54 CST		0	Thunderstorm Wind (EG 61 kt)
	06/21/11 20:13 CST		0	Source: Trained Spotter
Part of a line of severe thunderstorms with damaging wind gusts up to 70 mph (60 knots) that blew down numerous trees moved through northeast and eastern Waukesha County during the middle afternoon of June 21st.				
<b>WASHINGTON COUNTY --- 2.0 E HOLY HILL [43.24, -88.29]</b>				
	06/21/11 20:33 CST		75K	Thunderstorm Wind (EG 56 kt)
	06/21/11 20:33 CST		0	Source: Trained Spotter
Part of a line of severe thunderstorms with damaging wind gusts estimated up to 64 mph (56 knots) that blew down numerous trees and power lines moved through southern Washington County during the middle afternoon of June 21st. The powerful wind gusts blew a tree down on a house and knocked down a barn near Holy Hill.				
<b>A warm front lifted into southern Wisconsin ahead of slow-moving low pressure in Iowa. Moderate wind shear with 0-6km shear values of 35 to 45 knots and mixed layer (ML) CAPE in the 1500 to 2500J/kg range in place over the region combined with enhanced lift from an upper disturbance rotating through the base of an approaching upper trough to produce strong to severe supercell thunderstorms during the afternoon into the evening of June 21st. The storms produced two EF1 tornadoes in the vicinity of the nearly-stationary warm front that tracked along the border between Fond Du Lac County and Green Lake County. The severe thunderstorms also produced large hail and damaging wind gusts, including a 2-mile wide microburst across sections of Waukesha County that damaged homes, barns and felled thousands of trees and numerous power lines. In addition, the thunderstorms fed off a moisture-rich air mass moving into the region, with precipitable water values around 1.8 inch, that also produced heavy rainfall and flash flooding in portions of Waukesha and Milwaukee counties.</b>				

**Storm Data and Unusual Weather Phenomena - June 2011**

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------



This is a velocity image from the Milwaukee/Sullivan WSR 88-D radar as the microburst associated with the bow echo/squall line passed just to the east of the NWS office (KMKX on the image) around 3 pm CDT on June 21st. The bright yellow on the image near Dousman represents 90 to 95 knot winds around 325 feet above ground level. The Civil Townships of Dousman and neighboring Summit were two of the hardest hit locations by the powerful downburst winds.

<b>MILWAUKEE COUNTY --- CUDAHY [42.95, -87.85]</b>				
	06/30/11 18:35 CST		40K	Thunderstorm Wind (EG 55 kt)
	06/30/11 18:35 CST		0	Source: Emergency Manager

The City of Cudahy Emergency Manager reported numerous trees down in the city. One tree severely damaged a mobile home-trailer.

<b>RACINE COUNTY --- 4.0 NW WIND PT [42.82, -87.83], 2.0 E ELMWOOD PARK [42.70, -87.79]</b>				
	06/30/11 18:45 CST		0.10M	Thunderstorm Wind (MG 71 kt)
	06/30/11 19:00 CST		0	Source: Law Enforcement

Law enforcement officials reported numerous trees and power lines down across far eastern Racine County from severe thunderstorm winds that gusted up to 82 mph (71 knots) measured by the ASOS at Racine Batten Airport. A C-130 cargo airplane parked at the airport was spun 40-50 degrees and moved 31 feet by the severe wind gusts. Many large branches were also broken off by the powerful winds, which also blew shingles off of several homes. The thunderstorm outflow winds caused roof damage to a house and garage in the 4800 block of State Highway 31.

<b>KENOSHA COUNTY --- 4.5 E SOMERS [42.65, -87.81], DOWNTOWN KENOSHA [42.58, -87.83]</b>				
	06/30/11 19:00 CST	1	0.10M	Thunderstorm Wind (EG 65 kt)
	06/30/11 19:20 CST	1	0	Source: Law Enforcement

Storm Data and Unusual Weather Phenomena - June 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Law enforcement officials reported numerous trees and power lines down across far eastern Kenosha County from severe thunderstorm winds that gusted up to 75 mph (65 knots) as estimated by a trained spotter. A 31-year-old man riding a motorcycle was killed when a tree blew over on him in the 7600 block of 25th Avenue. A Pleasant Prairie woman injured her hip when she was struck by debris from a shed. Two other residents of the City of Kenosha were injured when they touched live wires brought down by the strong winds. Many large branches were also broken off by the powerful winds, which also damaged several homes. Officials estimate 500 to 800 trees were destroyed or badly damaged by the winds.				

Direct Fatalities: M31VE

A large supercell thunderstorm, just offshore over Lake Michigan, produced strong outflow winds that moved into far southeast Milwaukee County, and eastern sections of Racine and Kenosha counties during the evening of June 30th. Wind gusts up to 82 mph (71 knots) felled or caused extensive damage to numerous large trees that damaged homes, garages and vehicles, as well as dropped power lines across the affected areas. A motorcyclist in Kenosha was killed when a tree fell on him. At one point, 26,000 customers were without power in southeast Wisconsin. It took several days to restore power, with all customers back online by 3 pm CDT on Sunday, July 3rd.

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	07/01/11 13:30 CST		0	Marine Thunderstorm Wind (MG 39 kt)
	07/01/11 15:15 CST		0	Source: C-MAN Station
Several gusts exceeded 33 knots at the McKinley Marina (MLWW3) C-Man station between 1330 LST and 1515 LST. The strongest gust was 39 knots at 1515 LST.				
Outflow winds caused by thunderstorms over southern Lake Michigan caused wind gusts exceeding 33 knots for several hours in the near shore waters vicinity from North Point Lighthouse to Wind Point.				
<b>PT WASHINGTON TO NORTH PT LT WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]</b>				
	07/11/11 04:30 CST		0	Marine Thunderstorm Wind (MG 38 kt)
	07/11/11 04:30 CST		0	Source: C-MAN Station
<b>SHEBOYGAN TO POINT WASHINGTON WI 5NM OFFSHORE TO MID LAKE COUNTY --- 17.0 E PORT WASHINGTON [43.38, -87.53]</b>				
	07/11/11 04:40 CST		0	Marine Thunderstorm Wind (MG 52 kt)
	07/11/11 04:40 CST		0	Source: Mariner
Strong thunderstorm wind gust measured by mariner about 17 miles east of Port Washington.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	07/11/11 07:30 CST		0	Marine Thunderstorm Wind (MG 37 kt)
	07/11/11 07:45 CST		0	Source: C-MAN Station
Thunderstorm wind gusts from 34 to 37 knots for 15 minutes.				
An approaching cold front brought two rounds of strong thunderstorms to the nearshore waters of Lake Michigan from Sheboygan to Winthrop Harbor Illinois during the morning hours.				
<b>WISCONSIN, Southeast</b>				
<b>ROCK COUNTY --- 2.7 NNW EVANSVILLE [42.82, -89.32]</b>				
	07/01/11 02:10 CST		20K	Lightning
	07/01/11 02:10 CST		0	Source: Newspaper
Lightning struck a farm outside of Evansville in Rock County. Windows were shattered in the garage as well as double-pane windows on the front of the house. The foundation of the garage cracked. A car stored in the garage was declared a total loss, while a motorcycle incurred minor damage. Glass from kitchen cupboards and from pictures knocked off the wall covered kitchen counters and the floor. Circuit breakers in the home were blown out, and the telephone pedestal box outside the home was blown to the other side of the road.				
The northern edge of a complex of thunderstorms moving across northern Illinois pushed into far southern Wisconsin during the overnight hours of July 28th. Lightning struck a farm near Evansville, causing extensive damage to the garage and minor damage to the home.				
<b>(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK</b>				
	07/01/11 11:00 CST		0	Heat
	07/01/11 20:00 CST		0	
Gusty southerly winds ahead of a cold front trailing from low pressure tracking across southern Canada drew a hot and humid air mass into southern Wisconsin on July 1st. High temperatures climbed into the middle to upper 90s and combined with dew point temperatures in the lower to middle 70s to produce heat index values between 100 and 110. Thunderstorms over northeast Wisconsin that moved out over Lake Michigan during the morning spread clouds and onshore winds over counties near Lake Michigan. Due to the cooler temperatures and lower dewpoints, the atmosphere near the lake didn't recover to heat advisory levels after the winds shifted back to out of the south to southwest direction.				
<b>GREEN LAKE COUNTY --- BERLIN [43.97, -88.93]</b>				



## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/11/11 03:05 CST		0	Thunderstorm Wind (MG 55 kt)
	07/11/11 03:05 CST		0	Source: Emergency Manager

The Green Lake County Emergency Manager reported many large tree branches down in the town of Berlin from thunderstorm wind gusts measured at 63 mph (55 knots).

---

<b>DODGE COUNTY --- 5.0 NW FOX LAKE [43.62, -88.97], 3.0 SE FOX LAKE [43.54, -88.86]</b>				
	07/11/11 03:25 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 03:35 CST		0	Source: Emergency Manager

The Dodge County Emergency Manager reported 3 large trees blown down, many large tree branches down, and corn flattened in a 3-mile wide swath from northwest to southeast of Fox Lake from thunderstorm wind gusts measured at 64 mph (56 knots).

---

<b>DODGE COUNTY --- KEKOSKEE [43.53, -88.57], 2.0 E BROWNSVILLE [43.55, -88.44]</b>				
	07/11/11 03:50 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 03:55 CST		0	Source: Emergency Manager

The Dodge County Emergency Manager reported trees and power lines blown down in a 4-mile wide swath from Kekoskee to east of Brownsville from thunderstorm wind gusts estimated at 64 mph (56 knots).

---

<b>FOND DU LAC COUNTY --- BYRON [43.65, -88.45], 4.0 N CAMPBELLSPORT [43.66, -88.28]</b>				
	07/11/11 03:50 CST		5K	Thunderstorm Wind (EG 56 kt)
	07/11/11 03:55 CST		0	Source: Emergency Manager

The Fond Du Lac County Emergency Manager reported trees blown down and blocking a few roads as well as power lines and telephone lines blown down by thunderstorm wind gusts estimated at 64 mph (56 knots). The damage occurred in a 3-mile wide swath from Byron to north of Cambellsport.

---

<b>DODGE COUNTY --- JUNEAU [43.40, -88.70]</b>				
	07/11/11 03:55 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 03:55 CST		0	Source: Newspaper

Local newspapers reported trees blown down in the town of Juneau from thunderstorm wind gusts estimated at 64 mph (56 knots). A large tree limb punched a hole through the metal roof of a park shelter in Juneau.

---

<b>DODGE COUNTY --- 1.0 SW HUSTISFORD [43.34, -88.62]</b>				
	07/11/11 05:00 CST		2K	Lightning
	07/11/11 05:00 CST		0	Source: Newspaper

Newspapers reported a lightning strike that caused a minor fire at a home on State Highway 60, just west of Hustisford. The fire filled the basement with smoke.

---

<b>LAFAYETTE COUNTY --- 5.0 SW BELMONT [42.68, -90.40], WOODFORD [42.65, -89.87]</b>				
	07/11/11 05:10 CST		0.20M	Thunderstorm Wind (EG 65 kt)
	07/11/11 05:30 CST		1M	Source: Law Enforcement

Law enforcement reported damage in a 15-mile wide swath from southwest of Belmont to Woodford from thunderstorm wind gusts estimated at 75 mph (65 knots). Downed trees blocked roads and fallen power lines caused power outages in the towns of Belmont, Argyle and Darlington. Six homes were damaged, and a 100-year-old 38 foot by 100 foot barn was flattened on a farm near Argyle, damaging a tractor inside.

---

<b>IOWA COUNTY --- MINERAL PT [42.85, -90.18], 4.0 SE HOLLANDALE [42.83, -89.87]</b>				
	07/11/11 05:35 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 05:50 CST		0	Source: Law Enforcement

Law enforcement reported trees downed in a 4-mile wide swath from Mineral Point to southeast of Hollandale from thunderstorm wind gusts estimated at 64 mph (56 knots).

---

<b>GREEN COUNTY --- 3.0 NW JORDAN [42.68, -89.82], 5.0 N BRODHEAD [42.69, -89.37]</b>				
	07/11/11 05:45 CST		20K	Thunderstorm Wind (EG 65 kt)
	07/11/11 06:05 CST		2.20M	Source: Emergency Manager

The Green County Emergency Manager reported trees down; power lines down and 1 home damaged in a 20-mile wide swath from near Jordan Center to north of Brodhead due to damaging thunderstorm wind gusts estimated at 65 knots (75 mph). Corn crops, valued at \$2.2 million, were also flattened. Ludlow Bar in Monroe lost part of their roof. Wind gusts of 62 mph (54 knots) were measured by the AWOS at Mineral Point Airport at 656 am CDT and by a trained spotter in Brodhead at 658 am CDT.

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>DANE COUNTY --- DALEYVILLE [42.92, -89.82], 3.0 N ALBION [42.92, -89.07]</b>				
	07/11/11 06:00 CST		10K	Thunderstorm Wind (EG 56 kt)
	07/11/11 06:35 CST		0.30M	Source: Emergency Manager
The Dane County Emergency Manager reported trees and power lines down in a 10-mile wide swath from near Daleyville to north of Albion due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph). Corn crops, valued at \$300,000, were also flattened. A home in Belleville suffered roof damage when a tree fell on it.				
<b>ROCK COUNTY --- 5.0 WNW ORFORDVILLE [42.66, -89.34], 1.7 SE FAIRFIELD [42.61, -88.78]</b>				
	07/11/11 06:00 CST		0.13M	Thunderstorm Wind (EG 65 kt)
	07/11/11 06:35 CST		0.70M	Source: Law Enforcement
Law enforcement officials in Rock County reported trees and power lines down in a 23-mile wide swath from west northwest of Orfordville to northeast of Clinton due to damaging thunderstorm wind gusts estimated at 65 knots (75 mph). Corn crops, valued at \$700,000, were also flattened. A home in downtown Janesville had a bedroom addition crushed when a tree fell on it. The winds also blew down a barn on Creek Road where it crosses Turtle Creek, as well as a giant 22-foot, 2,000 pound fiberglass pumpkin off of a 65-foot tall silo at Meyer's Farm Market north of Janesville.				
<b>WAUKESHA COUNTY --- 1.0 ENE MERTON [43.16, -88.30]</b>				
	07/11/11 06:00 CST		1K	Lightning
	07/11/11 06:00 CST		0	Source: Newspaper
According to local newspaper reports, a home on Center Oak Road in Merton was struck by lightning, resulting in a minor fire.				
<b>JEFFERSON COUNTY --- BUSSEYVILLE [42.90, -88.98], 5.0 N PALMYRA [42.95, -88.60]</b>				
	07/11/11 06:40 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 07:12 CST		0	Source: Law Enforcement
Law enforcement officials reported trees and power lines down in an 8-mile wide swath from near Busseyville to north of Palmyra due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph). Corn crops were also blown down by the damaging winds.				
<b>WALWORTH COUNTY --- DELAVAN [42.63, -88.63]</b>				
	07/11/11 06:40 CST		0.10M	Thunderstorm Wind (EG 70 kt)
	07/11/11 06:40 CST		0	Source: Newspaper
Local newspapers reported trees and power lines down in and around the town of Delavan due to damaging thunderstorm wind gusts estimated at 70 knots (80 mph). The severe wind gusts felled 40 trees and damaged roofs and gutters on buildings at Lake Lawn Resort on the northeast side of Delavan Lake.				
<b>WALWORTH COUNTY --- 2.8 NE TIBBET [42.76, -88.53], 2.0 E ELKHORN [42.67, -88.51]</b>				
	07/11/11 06:45 CST		0.80M	Thunderstorm Wind (EG 56 kt)
	07/11/11 06:50 CST		0	Source: Law Enforcement
Law enforcement officials reported trees and power lines down in a 5-mile wide swath from northeast of Tibbets to east of Elkhorn due to damaging thunderstorm wind gusts estimated at 60 knots (69 mph). Corn crops were also blown down by the damaging winds. Two county salt storage sheds off of County Highway NN in Elkhorn were also severely damaged by the thunderstorm gusts. Winds caused the paneling of one shed to collapse into the structure. The roof of the other shed was lifted from it's foundation, damaging electrical utilities attached to it and adjacent buildings before settling back down. Officials estimate it will cost \$800,000 to repair the sheds. Trees also toppled over onto the Lauderdale Lakes Management district's community center on the corner of Sterlingworth Drive and U.S. Highway 12.				
<b>KENOSHA COUNTY --- SALEM [42.55, -88.12]</b>				
	07/11/11 06:50 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 06:50 CST		0	Source: Law Enforcement
Law enforcement officials reported trees down in the town of Salem due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph).				
<b>WALWORTH COUNTY --- 3.0 W LAKE GENEVA [42.60, -88.49], 2.0 E LAKE GENEVA [42.60, -88.39]</b>				
	07/11/11 06:50 CST		8K	Thunderstorm Wind (EG 56 kt)
	07/11/11 06:55 CST		0	Source: Law Enforcement
Law enforcement officials reported trees down in a 6-mile wide swath from west of Lake Geneva to east of Lake Geneva due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph). A car was damaged when a tree fell on it.				

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WAUKESHA COUNTY --- 2.5 SW DOUSMAN [42.99, -88.50]</b>				
	07/11/11 07:00 CST		0	Thunderstorm Wind (EG 56 kt)
	07/11/11 07:00 CST		0	Source: Newspaper
Local newspapers reported trees down southwest of Dousman due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph). A motorcyclist was injured when he had to lay down his bike to avoid a downed tree across the road. The wind sensor at the National Weather Service office recorded a peak wind gust of 54 mph (47 knots).				
<b>KENOSHA COUNTY --- DOWNTOWN KENOSHA [42.58, -87.83]</b>				
	07/11/11 07:12 CST		0	Thunderstorm Wind (MG 53 kt)
	07/11/11 07:12 CST		0	Source: Newspaper
Local newspapers reported a dozen trees down in the city of Kenosha due to damaging thunderstorm wind gusts measured at 53 knots (61 mph). The strong wind gusts were responsible for delays on several Metra railroad lines, as well as the Union Pacific rail that runs from Kenosha to Chicago.				
<b>WAUKESHA COUNTY --- 2.0 SW DOWNTOWN WAUKESHA [43.00, -88.25], ELM GROVE [43.05, -88.08]</b>				
	07/11/11 07:25 CST		0	Thunderstorm Wind (MG 56 kt)
	07/11/11 07:35 CST		0	Source: Trained Spotter
A trained spotter reported many trees down in a 5-mile wide swath from southwest of Waukesha to Elm Grove. Several bikes were damaged by falling tree branches at Frame Park in Waukesha. A building was severely damaged by the winds at Sunset Drive and Chapman on the southwest side of Waukesha. The damage was due to damaging thunderstorm wind gusts estimated at 56 knots (64 mph).				
<b>WAUKESHA COUNTY --- HARTLAND [43.10, -88.35]</b>				
	07/11/11 07:25 CST		1K	Lightning
	07/11/11 07:25 CST		0	Source: Newspaper
Newspapers reported lightning struck a power pole that knocked out power to residents in Hartland for 3 hours.				
<p><b>A pair of mesoscale convective complexes crossed southern Wisconsin during the early morning hours of July 11th. The first complex weakened as it moved eastward through northern sections of South Central and Southeast Wisconsin, though it produced severe wind gusts that caused damage across eastern Green Lake County into Fond Du Lac and Dodge counties. The second, stronger, complex moved along and south of the I-94 corridor. Embedded bow echo structures on radar indicated portions of the complex that caused widespread damaging wind gusts that downed power lines, blew over trees, damaged buildings, and flattened barns and corn fields. At the height of the event, WE Energies reported 28,000 customers were without power in Southeast Wisconsin.</b></p>				
<b>(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH</b>				
	07/17/11 11:00 CST	3	0	Excessive Heat
	07/21/11 02:00 CST		0	
Direct Fatalities: F87??, M65PH, M80PH				
<p><b>A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest from July 17th through July 21st. High temperatures climbed into the lower to middle 90s, which combined with muggy dew points in the middle 70s to lower 80s produce heat index values between 100 and 110 for four straight days. Three people were confirmed to have died due to the excessive heat: one each in the counties of Columbia, Marquette, and Sauk. Based on news reports, it is estimated that about 25 people in Dane County received medical treatment for the heat, and 5 people each in the counties of Rock, Columbia, and Sauk. There may have been people in other counties that received medical treatment, but this could not be verified.</b></p>				
<b>(WI-Z052) SHEBOYGAN, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z065) WAUKESHA, (WI-Z071) RACINE, (WI-Z072) KENOSHA</b>				
	07/17/11 11:00 CST		0	Heat
	07/18/11 21:00 CST		0	
A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest and affected different parts of Wisconsin on different days during the period of July 17th through July 21st. Heat index values reached 100 to 110 in this heat event.				
<b>FOND DU LAC COUNTY --- 8.0 NNW FOND DU LAC [43.89, -88.51]</b>				
	07/17/11 22:05 CST		0	Thunderstorm Wind (EG 50 kt)
	07/17/11 22:05 CST		0	Source: Law Enforcement

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Fond Du Lac County sheriff deputies reported large tree limbs and power lines blown down by damaging thunderstorm winds estimated at 50 knots (58 mph).				

The remains of a mesoscale convective complex moved into northeastern sections of Southeast Wisconsin. The complex produced damaging thunderstorm winds that broke off large tree limbs and dropped power lines near Fond Du Lac.

---

### FOND DU LAC COUNTY --- BRANDON [43.73, -88.77]

07/18/11 18:25 CST	2K	Thunderstorm Wind (EG 56 kt)
07/18/11 18:25 CST	0	Source: Law Enforcement

Law enforcement officials reported damage to a building in Brandon. The severe thunderstorm gusts blew pieces of sheet metal from the building into the air.

A line of strong to severe thunderstorms moved along a weak frontal boundary that was draped from the west-northwest to east-southeast across central Wisconsin. A severe thunderstorm produced strong wind gusts near Brandon that damaged a building, with pieces of sheet metal blown into the air.

---

### GREEN LAKE COUNTY --- PRINCETON [43.85, -89.12], 5.0 E MARKESAN [43.72, -88.88]

07/19/11 22:38 CST	0	Thunderstorm Wind (EG 52 kt)
07/19/11 23:00 CST	0	Source: Emergency Manager

Tree branches and power lines were reported blown down in a 5-mile wide swath from Princeton to east of Markesan from thunderstorm wind gusts estimated at 61 mph (52 knots).

---

### MARQUETTE COUNTY --- 1.5 NW OXFORD [43.80, -89.59]

07/19/11 22:38 CST	1K	Thunderstorm Wind (EG 52 kt)
07/19/11 22:38 CST	0	Source: Amateur Radio

Large tree branches were reported blown down and tents damaged at a Boy Scout camp from thunderstorm wind gusts estimated at 61 mph (52 knots).

---

### FOND DU LAC COUNTY --- 2.1 W WAUPUN [43.63, -88.77]

07/19/11 23:10 CST	0	Thunderstorm Wind (EG 52 kt)
07/19/11 23:10 CST	0	Source: Emergency Manager

Large tree branches were reported blown down from thunderstorm wind gusts estimated at 61 mph (52 knots) at the intersection of County A and County AW just west of Waupun.

---

### DODGE COUNTY --- BROWNSVILLE [43.55, -88.48]

07/19/11 23:18 CST	0	Thunderstorm Wind (EG 52 kt)
07/19/11 23:18 CST	0	Source: Law Enforcement

Large tree branches were reported blown down from thunderstorm wind gusts estimated at 61 mph (52 knots).

---

### DODGE COUNTY --- BEAVER DAM [43.47, -88.83]

07/19/11 23:23 CST	0	Thunderstorm Wind (EG 52 kt)
07/19/11 23:23 CST	0	Source: Law Enforcement

Large tree branches were reported blown down from thunderstorm wind gusts estimated at 61 mph (52 knots) that blocked a road and also blew down other large branches across Beaver Dam.

A warm frontal zone, extending southeast from low pressure in the Northern Plains across Minnesota, Wisconsin and into northern Illinois, marked the leading edge of a hot and humid air mass over the Upper Midwest. A low-level jet moving over this front was the impetus for the development of severe thunderstorm clusters with short bowing segments that moved from west central Wisconsin to Southeast Wisconsin late in the evening of July 19th into the early morning of July 20th. The storm clusters produced damaging wind gusts that felled trees and blew down power lines from Marquette and Green Lake counties through Fond Du Lac County into Dodge County.

---

### (WI-Z052) SHEBOYGAN, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z066) MILWAUKEE

07/20/11 10:00 CST	0	Heat
07/21/11 02:00 CST	0	

A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest and affected different parts of Wisconsin on different days during the period of July 17th through July 21st. Heat index values reached 100 to 110 in this heat event. In Milwaukee, it is estimated, based on news reports, that 60 people sought treatment for heat-related problems and hundreds called a social services line seeking free air-conditioners. Milwaukee-area organizers and health officials took steps to address the safety of

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

fair and festival-goers during and prior to this long-duration, excessive heat event.

---

### (WI-Z071) RACINE, (WI-Z072) KENOSHA

07/20/11 10:00 CST	0	Heat
07/21/11 14:00 CST	0	

A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest and affected different parts of Wisconsin on different days during the period of July 17th through July 21st. Heat index values reached 100 to 110 in this heat event.

---

### (WI-Z067) LAFAYETTE, (WI-Z068) GREEN

07/21/11 02:00 CST	0	Heat
07/21/11 09:30 CST	0	

A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest and affected different parts of Wisconsin on different days during the period of July 17th through July 21st. Heat index values reached near 100 in this heat event.

---

### (WI-Z069) ROCK, (WI-Z070) WALWORTH

07/21/11 02:00 CST	0	Heat
07/21/11 12:50 CST	0	

A dome of hot and humid air over the southern and central Plains built northward into the Upper Midwest and affected different parts of Wisconsin on different days during the period of July 17th through July 21st. Heat index values reached near 100 in this heat event.

---

### ROCK COUNTY --- 1.2 WNW BELOIT JCT [42.50, -89.04]

07/22/11 03:00 CST	25K	Lightning
07/22/11 03:00 CST	0	Source: Newspaper

A lightning strike caused a house fire at a home in the 400 block of Saint Lawrence Avenue in Beloit.

A complex of thunderstorms moved from west to east across southern Wisconsin, associated with a short wave passing through the western Great Lakes region. Lightning from one of the thunderstorms struck a home in Beloit, in Rock County, sparking a fire that caused \$25,000 in damage.

---

### WALWORTH COUNTY --- 0.7 W COMO [42.60, -88.51], 1.9 E LAKE GENEVA LAKE [42.58, -88.46]

07/23/11 00:30 CST	0	Thunderstorm Wind (EG 50 kt)
07/23/11 00:58 CST	0	Source: Storm Chaser

A wet microburst from a severe thunderstorm produced wind gusts estimated up to 50 knots (58 mph) that dropped trees and downed power lines along the north and south shores of Lake Como to the northern shore of Lake Geneva. Trees ended up falling onto 6 homes, damaging shingles and siding. The dock at the Mars Resort on Lake Como was destroyed when a tree fell on the dock.

A complex of severe thunderstorms moved west to east across southern Wisconsin and northern Illinois during the early morning hours of July 23rd. Strong wind gusts from a wet microburst from one of the thunderstorms in Walworth County dropped trees onto homes and downed power lines in the vicinity of Lake Como and Lake Geneva.

---

### DODGE COUNTY --- 3.0 NNE BEAVER DAM [43.51, -88.81], BEAVER DAM [43.47, -88.83]

07/23/11 20:25 CST	0	Hail (1.00 in)
07/23/11 20:33 CST	0	Source: Law Enforcement

A thunderstorm, part of a line of scattered thunderstorms moving southeast from east-central Wisconsin, strengthened to severe levels in central Dodge County. The storm produced large hail near Beaver Dam.

---

### DANE COUNTY --- 0.1 ENE BLACK EARTH [43.13, -89.75]

07/27/11 04:05 CST	10K	Lightning
07/27/11 04:05 CST	0	Source: Newspaper

A home in the 1200 block of Hillcrest Road in Black Earth was struck by lightning and caught fire. The home suffered extensive water and smoke damage.

---

### OZAUKEE COUNTY --- 1.4 WSW BAYSIDE [43.21, -87.91]

07/27/11 12:00 CST	2K	Lightning
07/27/11 12:00 CST	0	Source: Newspaper

A home on North Beechwood Drive in Mequon was struck by lightning and the chimney caught fire. The home suffered smoke damage.

## Storm Data and Unusual Weather Phenomena - July 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>ROCK COUNTY --- 9.2 NNE CHARLIE BLUFF [42.95, -88.88]</b>				
	07/27/11 20:04 CST		3K	Lightning
	07/27/11 20:04 CST		0	Source: Newspaper
A home on North Monarch Lane in the Town of Koshkonong was struck by lightning and caught fire. The home suffered smoke damage.				
<b>ROCK COUNTY --- 8.1 N LIMA CENTER [42.94, -88.85]</b>				
	07/27/11 20:05 CST		2K	Lightning
	07/27/11 20:05 CST		0	Source: Newspaper
A home in the 600 block of Cloute Street in Fort Atkinson was struck by lightning and caught fire. The home suffered smoke damage.				
<b>OZAUCKEE COUNTY --- 0.9 WNW THIENSVILLE [43.23, -88.00]</b>				
	07/27/11 21:00 CST		5K	Lightning
	07/27/11 21:00 CST		0	Source: Newspaper
A home on North Springdale Court in Mequon was struck by lightning and caught fire. The home suffered water and smoke damage.				
<b>OZAUCKEE COUNTY --- 1.8 NE FREISTADT [43.25, -88.03]</b>				
	07/27/11 21:00 CST		2K	Lightning
	07/27/11 21:00 CST		0	Source: Newspaper
A home on West Highland Road in Mequon was struck by lightning and the garage caught fire. The home suffered water and smoke damage.				
<p>Several rounds of thunderstorms crossed southern Wisconsin, from early in the day through the mid to late evening hours of July 27th. Lightning from the morning storms struck a home in Dane County in Black Earth, while homes in Mequon in Ozaukee County were struck by lightning from storms in the afternoon and evening. Lightning also struck homes in Fort Atkinson in Rock County from evening storms that also produced heavy rains that caused a mud slide that blocked part of U.S. Highway 12 at the State Highway 26 interchange. The rains soaked recently graded soil from construction that was unstable due to recently planted grass not yet having taken root.</p>				
<b>DODGE COUNTY --- 2.0 W BEAVER DAM [43.47, -88.87]</b>				
	07/30/11 16:55 CST		0	Thunderstorm Wind (EG 35 kt)
	07/30/11 17:00 CST	5	0	Source: Newspaper
Wind gusts up to 40 mph (35 knots) accompanied a gust front through Southeast Wisconsin. The gusty winds snapped the tether holding a hot-air balloon causing it to roll along the ground. A passenger on the balloon suffered minor injuries, while 4 spectators on the ground were also injured.				
<p>A gust front generated by strong thunderstorms in east central Wisconsin raced southeast at 55 mph across northern sections of South Central and Southeast Wisconsin during the late afternoon hours of July 30th. Winds of 30 to 40 mph were recorded behind the gust front. Five people were injured in a hot-air balloon incident when the gusty winds rolled the balloon along the ground.</p>				

## Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	08/13/11 11:10 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	08/13/11 11:10 CST		0	Source: C-MAN Station
A strong thunderstorm affected the nearshore waters of Lake Michigan south of Wind Point and produced strong thunderstorm winds.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	08/20/11 09:10 CST		0	Marine Thunderstorm Wind (MG 44 kt)
	08/20/11 09:10 CST		0	Source: C-MAN Station
A severe thunderstorm affected the near shore waters from Wind Point to Winthrop Harbor Illinois during the late morning.				
<b>WISCONSIN, Southeast</b>				
<b>ROCK COUNTY --- DOWNTOWN JANESVILLE [42.68, -89.02], 2.0 E DOWNTOWN JANESVILLE [42.68, -88.98]</b>				
	08/02/11 16:05 CST		0	Hail (2.25 in)
	08/02/11 16:07 CST		0	Source: Public
The father of a trained spotter reported a severe thunderstorm that produced 2.25 inch hail as it moved east-southeast along State Highway 11 from downtown Janesville.				
<b>WALWORTH COUNTY --- 0.4 S DELAVAN ARPT [42.62, -88.60]</b>				
	08/02/11 16:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:30 CST		0	Source: Law Enforcement
Police officers reported trees blown down along the northeast side of Delavan Lake by thunderstorm wind gusts estimated at 65 mph (56 knots). One dozen trees were blown over on the Lake Lawn Resort property in Delavan in Walworth County, which saw almost 40 trees downed by a storm earlier in the summer.				
<b>WALWORTH COUNTY --- WILLIAMS BAY [42.58, -88.53]</b>				
	08/02/11 16:50 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:50 CST		0	Source: Newspaper
Powerful thunderstorm winds toppled about a dozen trees in the Kishwaukee Nature Conservancy of Williams Bay in Walworth County. It was estimated that 1000 volunteer hours and \$6000 would be needed to clean up the tree debris over a span of about 6 weeks. This clean-up cost is indirectly related to the thunderstorm winds. Several trees were knocked over by the winds within the Village of Williams Bay, which resulted in snapped power-lines. Monetary damage amounts from the Village were not available.				
<b>RACINE COUNTY --- 3.0 WNW DOWNTOWN RACINE [42.74, -87.85]</b>				
	08/02/11 16:58 CST		0	Thunderstorm Wind (EG 56 kt)
	08/02/11 16:58 CST		0	Source: Amateur Radio
An amateur radio operator reported trees, tree limbs and power lines blown down west-northwest of downtown Racine by thunderstorm wind gusts estimated at 65 mph (56 knots). The downed trees and power lines blocked the roads near the intersection of Spring Street and Emmertsen Road.				
<b>KENOSHA COUNTY --- TWIN LAKES [42.53, -88.25]</b>				
	08/02/11 17:00 CST		0	Thunderstorm Wind (EG 50 kt)
	08/02/11 17:00 CST		0	Source: Law Enforcement
Police officers reported trees, tree limbs and power lines blown down in Twin Lakes in southwest Kenosha County by thunderstorm wind gusts estimated at 58 mph (50 knots).				
<b>KENOSHA COUNTY --- 2.0 NW PLEASANT PRAIRIE [42.57, -87.96]</b>				
	08/02/11 17:10 CST		0	Funnel Cloud
	08/02/11 17:10 CST		0	Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>KENOSHA COUNTY --- 3.0 SSE PLEASANT PRAIRIE [42.51, -87.91]</b>				
	08/02/11 17:18 CST		0	Thunderstorm Wind (EG 55 kt)
	08/02/11 17:18 CST		0	Source: Emergency Manager

The Kenosha County Emergency Manager reported trees and tree limbs blown down near Pleasant Prairie in far southeast Kenosha County by thunderstorm wind gusts estimated at 63 mph (55 knots). A semi-trailer was also blown over by the damaging wind gusts.

**A broken line of strong to severe thunderstorms formed along and ahead of a cold front...with lift further enhanced by a short wave passing through the region. Southern Wisconsin was in a strongly unstable air mass ahead of the front, with temperatures in the lower 90s and dew points in the upper 70s to around 80 degrees F. Mixed Layer CAPE values reached 3000 to 4000 J/Kg, and when combined with deep layer shear of 30 to 40 knots, set up conditions favorable for organized storm modes, including supercells and bowing segments. The resulting severe thunderstorms produced large hail and damaging wind gusts across portions of Rock County and the southern-most counties of Southeast Wisconsin. Up to 11,600 We Energies customers were without power in Racine and Kenosha Counties alone at the height of the storms.**



<b>DANE COUNTY --- 1.2 N BLOOMING GROVE [43.07, -89.37], 0.9 ENE BLOOMING GROVE [43.05, -89.35]</b>				
	08/08/11 18:13 CST		0	Tornado (EF0, L: 1.21 mi , W: 20 yd)
	08/08/11 18:22 CST		0	Source: Law Enforcement

Law enforcement officials, as well as many members of the general public, reported a tornado that formed and stayed over Lake Monona, about 1 mile east of Law Park in the City of Madison. The tornado tracked south, then southeast, over the lake before dissipating west of Squaw Bay, about 1/4 mile north of Waunona Park. No damage was reported. The tornado kicked up water spray, estimated about 20 feet wide at the surface of the water expanding to 40 feet wide about 40 feet above the water. Many public reports of the tornado/waterspout came into local law enforcement, along with photos and video clips of the vortex from a variety of locations around the lake. The associated condensation funnel never developed more than half-way down to the water surface. Though actually a waterspout, it is being termed a tornado in the official Storm Data report due to National Weather Service rules that limit waterspout reports to bodies of water with a designated marine zone. Lake Monona does not have an assigned marine zone number. The exact starting point was Lat 43.06722 and Lon -89.36588, the mid-point was Lat 43.05864 and Lon -89.36147, and the end point was Lat 43.05263 and Lon -89.35266. The average path width was 15 yards. This tornado-waterspout had estimated wind speeds of 30 to 40 mph based on eyewitness reports. This value is below the minimum wind speed of an EF-0 tornado which is 65 mph in the current EF-Scale.

**An unusual tornado event occurred during the early evening hours of August 8th. A vigorous short wave moved across the region in the early evening hours. While deep layer wind shear was weak, there was enough instability, with CAPE values around 700 J/Kg, to produce strong enough updrafts to ingest low-level vorticity and stretch it to produce non-supercell tornadoes (land-spout variety). A weak EF0 tornado formed as a shower moved over a weak, west to east orientated low-level atmospheric boundary over Lake Monona in Madison, southeast of the State Capitol.**



Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<div>   </div>				

The map graphic shows the path of the August 8th tornado/waterspout over Lake Monona based on a number of reports from various locations around, and on the lake. The picture was taken by Steve Brown of Madison from the northeast corner of Lake Monona, looking to the southwest.

DODGE COUNTY --- 3.0 N IRON RIDGE [43.44, -88.53], 6.0 SSE THERESA [43.44, -88.40]				
	08/12/11 18:10 CST	0		Thunderstorm Wind (EG 50 kt)
	08/12/11 18:30 CST	0		Source: Trained Spotter
A trained spotter reported trees and power lines blown down by thunderstorm wind gusts estimated at 58 mph (50 knots) in an 8-mile wide swath, running west to east near State Highway 33, from north of Iron Ridge to south-southeast of Theresa.				
WASHINGTON COUNTY --- 3.0 W JACKSON [43.32, -88.23]				
	08/12/11 18:29 CST	0		Funnel Cloud
	08/12/11 18:29 CST	0		Source: COOP Observer
WASHINGTON COUNTY --- 2.0 N SLINGER [43.36, -88.28], 2.0 NE JACKSON [43.34, -88.14]				
	08/12/11 18:50 CST	0		Thunderstorm Wind (EG 50 kt)
	08/12/11 19:00 CST	0		Source: Public
Public reports were received of trees and power lines blown down by thunderstorm wind gusts estimated at 58 mph (50 knots) in an 5-mile wide swath from north of Slinger to northeast of Jackson.				
WASHINGTON COUNTY --- 4.0 E JACKSON [43.32, -88.09]				
	08/12/11 18:53 CST	0		Funnel Cloud
	08/12/11 18:53 CST	0		Source: Trained Spotter

## Storm Data and Unusual Weather Phenomena - August 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

Warm and moist air pushing into southern Wisconsin ahead of an advancing short wave trough across Minnesota produced a few strong to severe thunderstorms across a small portion of Southeast Wisconsin during the evening hours of August 12th. Instability was marginal, with CAPE values just under 1000 J/Kg, but sufficient when coupled with modest shear to produce the severe thunderstorms with damaging winds and a couple of funnel cloud reports.

---

**ROCK COUNTY --- 1.5 NE NEWARK [42.57, -89.21]**

08/20/11 07:07 CST	0	Hail (0.75 in)
08/20/11 07:07 CST	0	Source: COOP Observer

---

**ROCK COUNTY --- 1.0 SSE NEWARK [42.54, -89.22]**

08/20/11 07:10 CST	0	Hail (1.25 in)
08/20/11 07:10 CST	0	Source: Trained Spotter

Warm air advection and vorticity advection ahead of a short wave trough combined with forcing along a surface cold front to produce thunderstorms over southern Wisconsin during the morning hours of August 20th. Some of the thunderstorms produced large hail in southwest Rock County near Newark.

---

**ROCK COUNTY --- BELOIT [42.52, -89.03]**

08/23/11 07:10 CST	1K	Lightning
08/23/11 07:10 CST	0	Source: Newspaper

Lightning struck an iron gate at the Pierce Distribution facility at 601 Third St. in Beloit around 8 am on August 23rd. The electrical charge from the lightning strike traveled to two nearby electrical panels, producing sparks that caused a minor fire. Minimal damage and no injuries were reported by the Beloit Fire Department.

A line of thunderstorms crossing southern Wisconsin during the morning hours of August 23rd produced numerous cloud-to-ground lightning strikes. Lightning struck a business in Beloit, in Rock County that started a small electrical fire. The fire was quickly put out with minimal damage by the Beloit Fire Department.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.9 N SHEBOYGAN [43.78, -87.72]</b>				
	09/02/11 09:00 CST		0	Marine Thunderstorm Wind (MG 46 kt)
	09/02/11 09:00 CST		0	Source: Mesonet
Thunderstorm wind gust to 53 mph at Sheboygan North High School.				
A line of severe thunderstorms moved from east central Wisconsin over the near shore waters of Lake Michigan during the morning hours. These thunderstorms caused damaging thunderstorm wind gusts.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	09/03/11 05:00 CST		0	Marine Thunderstorm Wind (MG 35 kt)
	09/03/11 05:00 CST		0	Source: C-MAN Station
Strong thunderstorms affected portions of the Lake Michigan near shore waters off the southeast Wisconsin coast during the early morning hours of September 3rd. These thunderstorms caused severe marine wind gusts.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 1.8 NNE CUDAHY [42.97, -87.84], 3.2 N CUDAHY [43.00, -87.85]</b>				
	09/24/11 08:45 CST		0	Waterspout
	09/24/11 08:55 CST		0	Source: Public
This was the first of five waterspouts that developed just southeast of Milwaukee Harbor.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 2.6 NNE CUDAHY [42.99, -87.83], 5.2 N CUDAHY [43.03, -87.85]</b>				
	09/24/11 09:00 CST		0	Waterspout
	09/24/11 09:20 CST		0	Source: Public
This was the second of five waterspouts observed just southeast of Milwaukee Harbor.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 2.9 N CUDAHY [42.99, -87.85], 5.1 N CUDAHY [43.02, -87.86]</b>				
	09/24/11 09:02 CST		0	Waterspout
	09/24/11 09:23 CST		0	Source: Coast Guard
This was the third in a series of five waterspouts observed in Milwaukee Bay. Observed by commodore of Milwaukee Yacht Club.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 4.3 N CUDAHY [43.01, -87.86], 4.5 SE NORTH POINT LTHOUSE [43.03, -87.87]</b>				
	09/24/11 09:30 CST		0	Waterspout
	09/24/11 09:40 CST		0	Source: Coast Guard
This was the fourth in a series of five waterspouts observed in Milwaukee Bay that morning. This waterspout was observed by multiple people at the Milwaukee Yacht Club as well as Coast Guard personnel on ship.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 4.9 SE NORTH POINT LTHOUSE [43.03, -87.86], 4.0 SE NORTH POINT LTHOUSE [43.04, -87.87]</b>				
	09/24/11 09:40 CST		0	Waterspout
	09/24/11 09:45 CST		0	Source: Public
This was the last and furthest north in a series of five waterspouts observed in Milwaukee Bay that morning. This waterspout was observed by multiple people at the Milwaukee Yacht Club.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 4.4 ESE KENOSHA [42.56, -87.75], 4.1 E KENOSHA [42.58, -87.75]</b>				
	09/24/11 14:12 CST		0	Waterspout
	09/24/11 14:17 CST		0	Source: Trained Spotter
One of two waterspouts that developed just east of the Kenosha lake shore, caused by very unstable conditions in the low levels of the atmosphere over Lake Michigan and weak low level convergent boundaries caused by nearby showers.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 2.3 E KENOSHA [42.59, -87.79], 1.4 ENE KENOSHA [42.59, -87.80]</b>				
	09/24/11 14:22 CST		0	Waterspout
	09/24/11 14:36 CST		0	Source: Emergency Manager

Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
One of two waterspouts that developed just east of the Kenosha lake shore, caused by very unstable conditions in the low levels of the atmosphere over Lake Michigan and weak low level convergent boundaries caused by nearby showers.				

On September 24th, 2011 an unseasonably cold air mass flowed over the warm waters of Lake Michigan creating very unstable conditions in the low levels of the atmosphere. The lake surface temperature was estimated to be in the lower to middle 60s F. Meanwhile, the ambient air around 4000 feet was estimated to be 40 degrees F creating very unstable conditions over the low levels of Lake Michigan. Updrafts from nearby showers and thunderstorms resulted in convergent boundaries over the near shore waters of Lake Michigan. The combination of the unstable atmosphere and these boundaries caused five "observed" waterspouts just offshore of downtown Milwaukee, and two "observed" waterspouts just offshore of Kenosha. The waterspouts remained offshore and did not cause any property damage. Most of the waterspouts were filmed by WISN-TV.



Left image shows approximate paths of five waterspouts based on numerous pictures and video submitted by severe weather spotters, U.S. Coast Guard, Milwaukee WISN TV-12, and the general public in the Milwaukee Harbor area. Image on right was taken by Elaine Litzau at about 10:10 A.M. CDT, who was at the Discovery World Museum on the Milwaukee lakeshore. Her image is most likely of waterspout #3 which occurred from 10:02 to 10:23 A.M. CDT.

WISCONSIN, Southeast

MARQUETTE COUNTY --- 5.0 W WESTFIELD [43.88, -89.58], GERMANIA [43.88, -89.25]	09/02/11 07:35 CST	75K	Thunderstorm Wind (MG 58 kt)
	09/02/11 08:00 CST	0	Source: Emergency Manager

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Severe thunderstorms with strong wind gusts produced damage across Marquette County, including a 10-mile wide swath of damage from west of Westfield to Germania. The damaging winds downed power lines and trees, including a tree that crushed a parked car on CTH B in Montello. Five homes received minor damage to roofs, siding and gutters due to tree debris striking the homes. At the peak of the storm, 937 homes were without electricity. A mesonet site one mile north of Westfield recorded a 67 mph (58 knot) wind gust.				

---

### FOND DU LAC COUNTY --- 1.5 NW FOND DU LAC [43.80, -88.47]

09/02/11 08:40 CST	0	Thunderstorm Wind (EG 50 kt)
09/02/11 08:40 CST	0	Source: Emergency Manager

Severe thunderstorms with strong wind gusts produced damage across central Fond Du Lac County. The damaging winds downed power lines and trees, knocking out power to businesses and homes on the west side of the city of Fond Du Lac.

**Forcing from a strengthening low-level jet impinging on a surface warm front as it slowly lifted north through the state, was enhanced by lift from the right entrance region of an upper level jet. A very warm, moist and unstable air mass to the south of the front provided the necessary ingredients for the development of severe thunderstorms over northern sections of South Central and Southeast Wisconsin the morning of September 2nd.**

---

### IOWA COUNTY --- 2.5 S LINDEN [42.88, -90.27], 4.0 SSW DODGEVILLE [42.92, -90.16]

09/03/11 01:40 CST	50K	Thunderstorm Wind (EG 70 kt)
09/03/11 01:45 CST	0	Source: Emergency Manager

The Iowa County Emergency manager reported damage from severe thunderstorm wind gusts estimated at 70 knots (80 mph) in a 5-mile wide swath from south of Linden to south-southwest of Dodgeville. The damaging winds blew the roof off of a cattle barn south of Dodgeville and knocked over a grain bin. Numerous trees and power lines were knocked down by the powerful winds.

---

### IOWA COUNTY --- 5.0 SE DODGEVILLE [42.92, -90.06], 6.0 NE HOLLANDALE [42.93, -89.85]

09/03/11 02:05 CST	0.10M	Thunderstorm Wind (EG 70 kt)
09/03/11 02:15 CST	0.20M	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 70 knots (80 mph) in a 5-mile wide swath from southeast of Dodgeville to northeast of Hollandale. The damaging winds destroyed a cattle shed and caused minor damage to a barn. The winds damaged several corn fields on East Lawinger Road southeast of Dodgeville. A grain bin was knocked off its foundation and destroyed, and a corn field was flattened northeast of Hollandale. Numerous trees and power lines were knocked down by the powerful winds.

---

### DANE COUNTY --- 5.0 SW BLUE MOUNDS [42.97, -89.90], 2.0 E MC FARLAND [43.02, -89.24]

09/03/11 02:22 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 02:57 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in an 8-mile wide swath from southwest of Blue Mounds to east of McFarland. The damaging winds downed numerous trees and power lines, with 1000 customers left without power in the Madison area.

---

### DANE COUNTY --- OREGON [42.93, -89.38], 5.0 NE ALBION [42.93, -89.00]

09/03/11 02:45 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:30 CST	0	Source: Trained Spotter

A trained spotter reported numerous trees and power lines downed along a path from Oregon to northeast of Albion from damaging severe thunderstorm wind gusts estimated at 65 knots (75 mph). The winds tore some siding off a home in Oregon. Heavy rain caused ponding of water on area roadways, with water over the curb on some streets in Oregon.

---

### DANE COUNTY --- 2.0 E PAOLI [42.92, -89.48]

09/03/11 02:46 CST	0	Hail (0.75 in)
09/03/11 02:46 CST	0	Source: Trained Spotter

A trained spotter reported hail near Paoli that was measured 3/4 of an inch in diameter that fell from strong to severe thunderstorms moving through Dane County during the early morning hours of of September 3rd.

---

### DANE COUNTY --- COTTAGE GROVE [43.08, -89.20]

09/03/11 03:10 CST	0	Thunderstorm Wind (EG 50 kt)
09/03/11 03:10 CST	0	Source: Trained Spotter

A trained spotter reported large tree branches downed from severe thunderstorm wind gusts estimated at 50 knots (58 mph).

---

### JEFFERSON COUNTY --- LAKE MILLS [43.08, -88.90]

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	09/03/11 03:10 CST		0	Thunderstorm Wind (EG 65 kt)
	09/03/11 03:20 CST		0	Source: Trained Spotter

A trained spotter reported large tree branches blown down, an above ground pool blown into a neighbor's yard and lawn furniture tossed from severe thunderstorm wind gusts estimated at 65 knots (75 mph).

---

### DANE COUNTY --- 2.0 NNW MARSHALL [43.20, -89.07]

09/03/11 03:11 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 03:11 CST	0	Source: Law Enforcement

Law enforcement officers reported trees downed from severe thunderstorm wind gusts estimated at 56 knots (65 mph).

---

### DODGE COUNTY --- 2.0 N PORTLAND [43.23, -88.97], 2.0 N ASHIPGUN [43.25, -88.52]

09/03/11 03:20 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:45 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in a 4-mile wide swath from north of Portland to north of Ashippun. The damaging winds downed numerous trees and power lines.

---

### JEFFERSON COUNTY --- WATERLOO [43.18, -88.98], 4.0 NE IXONIA [43.19, -88.54]

09/03/11 03:20 CST	15K	Thunderstorm Wind (EG 65 kt)
09/03/11 03:40 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 65 knots (75 mph) in a 3-mile wide swath from Waterloo to northeast of Ixonia. The damaging winds downed numerous trees and power lines.

---

### WAUKESHA COUNTY --- MONTEREY [43.17, -88.50]

09/03/11 03:40 CST	2K	Thunderstorm Wind (EG 56 kt)
09/03/11 03:40 CST	0	Source: Law Enforcement

Law enforcement officials reported damage from severe thunderstorm wind gusts estimated at 56 knots (65 mph) that downed two trees and two power lines and numerous branches in the township of Oconomowoc.

---

### DODGE COUNTY --- ALDERLEY [43.22, -88.45]

09/03/11 03:55 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 03:55 CST	0	Source: Law Enforcement

Law enforcement officials reported trees downed from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

---

### WASHINGTON COUNTY --- 5.0 S HARTFORD [43.25, -88.38], 5.0 SE JACKSON [43.27, -88.10]

09/03/11 04:00 CST	3K	Thunderstorm Wind (EG 60 kt)
09/03/11 04:20 CST	0	Source: Trained Spotter

A trained spotter reported numerous trees and power lines downed in a 6-mile wide swath from south of Hartford to southeast of Jackson from damaging severe thunderstorm wind gusts estimated at 60 knots (69 mph). The roof was blown off a silo, trees were downed and a hay wagon moved 20 feet by the severe wind gusts on a farm at the intersection of Western Avenue and CTH P south of Jackson.

---

### MILWAUKEE COUNTY --- 2.0 NW TIMMERMAN ARPT [43.14, -88.06], 1.1 NW FOX PT [43.18, -87.90]

09/03/11 04:10 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 04:30 CST	0	Source: Law Enforcement

Law enforcement officers reported numerous trees and power lines downed in a 4-mile wide swath from northwest of Timmerman Field to Bayside from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

---

### OZAUKEE COUNTY --- 3.0 W MEQUON [43.22, -88.04], PORT WASHINGTON [43.38, -87.87]

09/03/11 04:20 CST	0	Thunderstorm Wind (EG 56 kt)
09/03/11 04:35 CST	0	Source: Law Enforcement

Law enforcement officers reported numerous trees and power lines downed in a 5-mile wide swath from west of Mequon to Port Washington from damaging severe thunderstorm wind gusts estimated at 56 knots (65 mph).

**A residual surface boundary that extended from eastern Iowa across northern Illinois was the focus for thunderstorm development as a moderate southwest 850 mb jet pushed it north as a warm front. Upper divergence from the right entrance region of an upper jet maximum provided additional lift. Moderate deep layer wind shear produced sustained updrafts to form thunderstorm clusters that**

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

evolved into short line segments as they reached southern Wisconsin. The severe thunderstorm lines produced damaging wind gusts in a swath from Iowa County along and either side of the I-94 corridor to Milwaukee and Ozaukee counties.

---

### WAUKESHA COUNTY --- 1.6 SSW DOWNTOWN WAUKESHA [43.00, -88.23]

09/25/11 11:55 CST		2K	Lightning
09/25/11 11:55 CST		0	Source: Newspaper

Lightning struck a tree outside of a home in the 100 block of west Frame Avenue in the City of Waukesha. The lightning strike also damaged the gas meter at the home and part of a gas line. Some homes in the area were evacuated briefly as a precaution. The lightning strike sent some pieces of wood from the tree 60 yards away from the point of impact, damaging some nearby properties. Fire officials had the gas line problem resolved by 4:30 pm CDT (3:30 pm CST).

---

### GREEN COUNTY --- 4.0 NW MONTICELLO [42.77, -89.64]

09/25/11 13:25 CST		0	Funnel Cloud
09/25/11 13:25 CST		0	Source: Trained Spotter

A trained spotter reported a funnel cloud northwest of Monticello in north-central Green County.

---

### LAFAYETTE COUNTY --- 2.0 SE SOUTH WAYNE [42.55, -89.85]

09/25/11 13:55 CST		0	Funnel Cloud
09/25/11 13:55 CST		0	Source: Law Enforcement

Law enforcement officials reported a funnel cloud southeast of the town of South Wayne in far southeast Lafayette County.

---

### DANE COUNTY --- 1.0 W VERONA [42.98, -89.55]

09/25/11 16:10 CST		0	Hail (0.75 in)
09/25/11 16:10 CST		0	Source: Trained Spotter

A trained spotter reported hail, 3/4 of an inch in diameter, that fell 1 mile west of the town of Verona in Dane County.

A cut-off upper level low pressure system, situated just south of the Wisconsin/Illinois border, produced a deepening surface low that wrapped north and then west around the upper low. Deep moisture...strong layer Q-vector convergence and strong 850-700 mb warm air advection pushed across southern Wisconsin ahead of, and along with, the surface low during the afternoon hours of September 25th. Thunderstorms were embedded within the broad shield of rain showers that developed over South-Central and Southeast Wisconsin. These storms produced small hail, and a few funnel cloud reports, mainly over southwest portions of South-Central Wisconsin.

---

### RACINE COUNTY --- 1.0 NW IVES GROVE [42.74, -87.98], 1.3 ENE IVES GROVE [42.74, -87.95], 1.2 ESE IVES GROVE [42.72, -87.95], 1.0 SW IVES GROVE [42.72, -87.98]

09/26/11 05:00 CST	1	6K	Flood (due to Heavy Rain)
09/26/11 05:00 CST		1K	Source: Newspaper

Heavy rains resulted in flash flooding of a construction zone on the west frontage road of I-94 between STH 20 and CTH C. A 76-year-old Dousman man died when his car stalled in the flood waters after driving into a flooded ditch in the construction zone. The preliminary cause of death was from a heart attack and hypothermia, suffered when the victim apparently tried to leave the marooned car and walk for help. His body was found in the flood water about 100 yards from his car.

Direct Fatalities: M76EQ

Showers and thunderstorms associated with a cut-off upper low that stalled over northern Illinois and southern Wisconsin produced up to 3 inches of rain across parts of southern Wisconsin over a 48-hour period ending the morning of September 26th...with between 1.5 and 2 inches falling in the last 24 hours of that two-day period. The heavy rains flooded low-lying areas and ditches across the region, with standing water 3 to 4 feet deep in some locations. A 76-year-old man died of a heart attack and hypothermia after his car became stalled after he drove into a flooded construction zone in Racine County.

---

### (WI-Z056) SAUK, (WI-Z062) IOWA, (WI-Z067) LAFAYETTE

09/29/11 13:00 CST		6K	Strong Wind (MAX 47 kt)
09/29/11 22:00 CST		0	

Strong and gusty northwest winds developed over South-Central Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 54 mph (39 to 47 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines at scattered locations across South-Central Wisconsin.

## Storm Data and Unusual Weather Phenomena - September 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z069) ROCK, (WI-Z070) WALWORTH				
	09/29/11 13:00 CST		21K	Strong Wind (MAX 48 kt)
	09/30/11 00:00 CST		0	

### WASHINGTON COUNTY --- HARTFORD [43.32, -88.38]

09/29/11 14:15 CST	0	Hail (0.75 in)
09/29/11 14:15 CST	0	Source: Trained Spotter

Scattered thunderstorms that accompanied a cold front across southern Wisconsin produced hail showers over portions of Southeast Wisconsin. While most of the hail was 1/4 to 1/2 inch in diameter, a trained spotter in Hartford, in western Washington County, reported 3/4 inch hail stones.

Strong and gusty northwest winds developed over South-Central and Southeast Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 55 mph (39 to 48 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines at scattered locations across South-Central and Southeast Wisconsin.

### (WI-Z052) SHEBOYGAN, (WI-Z060) OZAUKEE, (WI-Z066) MILWAUKEE, (WI-Z071) RACINE, (WI-Z072) KENOSHA

09/29/11 14:00 CST	10K	Strong Wind (MAX 46 kt)
09/30/11 02:45 CST	0	

Strong and gusty northwest winds developed over Southeast Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (45 and 55 mph). Surface winds gusted between 45 mph and 53 mph (39 to 46 knots), driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds, which continued into the early morning hours of September 30th, toppled trees and downed power lines across Southeast Wisconsin. The power outages indirectly led to the death of a 49-year-old Milwaukee man on a ventilator.

### (WI-Z068) GREEN

09/29/11 15:00 CST	4K	High Wind (MAX 59 kt)
09/29/11 17:00 CST	0	

Strong and gusty northwest winds developed over South-Central Wisconsin behind a cold front trailing from rapidly strengthening low pressure that tracked across northern Wisconsin into northern Lower Michigan on Thursday, September 29th. The resulting tight pressure gradient over the state produced 850 mb winds of 45 knots (52 mph) and 925 mb winds of 35 to 40 knots (40 to 46 mph). Surface winds gusted between 50 mph and 68 mph in Green County, driven by 3-hourly pressure rises on the order of 4 millibars. The strong winds toppled trees and downed power lines across South-Central Wisconsin. The strong winds affected all of Wisconsin, with all of the state parks on the Door Peninsula closed for the entire following weekend to allow crews time to clear debris and restore power.



## Storm Data and Unusual Weather Phenomena - October 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 3.2 NE KOHLER/ANDRAE ST PRK [43.70, -87.69], 2.6 NE KOHLER/ANDRAE ST PRK [43.69, -87.69]</b>				
	10/19/11 08:05 CST		0	Waterspout
	10/19/11 08:15 CST		0	Source: Public
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 3.1 NE KOHLER/ANDRAE ST PRK [43.70, -87.69], 2.8 NE KOHLER/ANDRAE ST PRK [43.70, -87.69]</b>				
	10/19/11 08:12 CST		0	Waterspout
	10/19/11 08:20 CST		0	Source: Public
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 3.1 NE KOHLER/ANDRAE ST PRK [43.70, -87.69], 2.8 NE KOHLER/ANDRAE ST PRK [43.70, -87.69]</b>				
	10/19/11 08:14 CST		0	Waterspout
	10/19/11 08:20 CST		0	Source: Public
<p>Unstable conditions in the low levels of the atmosphere over Lake Michigan along with increasing low-level convergence associated with a developing Low Pressure system in the Tennessee and Ohio Valleys produced several waterspouts over the near shore waters of Lake Michigan during the morning on October 19th. Based on eyewitness reports it is estimated that three waterspouts were visible between 9 and 930 am CDT over the near shore waters of Lake Michigan, just east-northeast of Kohler-Andrae State Park. The waterspouts were just north of an area of showers. Members of the public viewed the waterspouts east-northeast from Oostburg and south-southeast from downtown Sheboygan. The waterspouts dissipated off-shore.</p>				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.6 NE RACINE [42.74, -87.78]</b>				
	10/19/11 13:23 CST		0	Marine High Wind (MG 50 kt)
	10/19/11 13:23 CST		0	Source: Public
Measured gust at Racine Yacht Club.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	10/19/11 15:10 CST		0	Marine High Wind (MG 47 kt)
	10/19/11 15:10 CST		0	Source: C-MAN Station
Measured at KNSW3 lake shore observation site. Sustained winds of 38 knots at time of gust.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	10/19/11 16:00 CST		0.10K	Marine Strong Wind (MG 42 kt)
	10/19/11 16:00 CST		0	Source: C-MAN Station
Measured at MLWW3 marine observation platform.				
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.4 E SHEBOYGAN [43.75, -87.69]</b>				
	10/19/11 16:00 CST		0.10K	Marine Strong Wind (MG 45 kt)
	10/19/11 16:00 CST		0	Source: C-MAN Station
Measured at SGNW3 marine observation platform. Prevailing winds of 41 knots at time of wind gust.				
<b>SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.4 E SHEBOYGAN [43.75, -87.69]</b>				
	10/19/11 18:00 CST		0.10K	Marine Strong Wind (MG 46 kt)
	10/19/11 18:00 CST		0	Source: C-MAN Station
Measured at SGNW3 marine observation platform. Prevailing winds of 37 knots at time of gust.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.6 NE RACINE [42.74, -87.78]</b>				
	10/19/11 18:00 CST		0	Marine High Wind (MG 63 kt)
	10/19/11 18:00 CST		0	Source: Public
Measured at Racine Yacht Club.				
<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]</b>				
	10/19/11 18:20 CST		0	Marine High Wind (MG 53 kt)
	10/19/11 18:20 CST		0	Source: C-MAN Station

## Storm Data and Unusual Weather Phenomena - October 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Measured at KNSW3 marine observation platform. Prevailing wind 43 knots at time of wind gust.				
<b>NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]</b>				
	10/19/11 19:00 CST		0.30M	Marine Strong Wind (MG 46 kt)
	10/19/11 19:00 CST	1	0	Source: C-MAN Station

Measured at MLWW3 marine observation platform.

<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 3.2 E WIND POINT [42.78, -87.77]</b>				
	10/19/11 21:00 CST		0	Marine High Wind (EG 50 kt)
	10/19/11 21:00 CST		0	Source: Public

Tree damage at Shoop Park Golf Couse in Wind Point. Wind gust speed and time estimated.

<b>WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 0.7 NNE RACINE [42.73, -87.80]</b>				
	10/19/11 23:15 CST		0.10K	Marine Strong Wind (MG 40 kt)
	10/19/11 23:15 CST		0	Source: Mesonet

Measured at 21st Century Prep School.

<b>LM SHEBOYGAN WI TO WINTHROP HARBOR IL EWD BYD 5NM TO MID LINE OF LAKE COUNTY --- 1.9 N SHEBOYGAN [43.78, -87.72]</b>				
	10/19/11 23:20 CST		0.10K	Marine Strong Wind (MG 41 kt)
	10/19/11 23:20 CST		0	Source: Mesonet

Measured at Sheboygan North High School.

Rapidly developing low pressure moved across western Ohio and southeast Lower Michigan during the overnight period of October 19th and morning of October 20th. An associated strong pressure gradient and lingering unstable conditions over Lake Michigan allowed strong gusty north to northeast winds to mix down to the lake surface. The lake surface temperature at this time was estimated to be in the 54 to 58 degree range. Wind gusts reached 50 to 70 mph along the lake shore. The strong winds caused high waves of 12 to 16 feet. The strong winds and high waves caused extensive damage to boats in the South Shore Yacht Club, mainly due to an eroding and failing breakwall protecting the southern part of Milwaukee Harbor. Three boats were totally destroyed at the yacht club. Four others were washed ashore and were able to be salvaged. Two of the destroyed boats were sunk. One person at the Club, while trying to secure a boat with a rope line, was tossed about on the boat due to wave action and injured (directly-related).

## Storm Data and Unusual Weather Phenomena - October 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------



*Here are several images showing the high waves crashing on the breakwall located in the southern end of Milwaukee Harbor, just east of the South Shore Yacht Club. Also pictured are several of the boats that sustained damage from the high waves. Photographs taken by Chris Gribble, a member of the South Shore Yacht Club.*

### WIND POINT WI TO WINTHROP HARBOR IL 5NM OFFSHORE TO MID LAKE COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]

10/23/11 21:00 CST	0	Marine Thunderstorm Wind (MG 40 kt)
10/23/11 21:10 CST	0	Source: C-MAN Station

Wind gusts of 39 to 40 knots lasted 10 minutes.

A line of strong thunderstorms caused by a weak frontal boundary affected the near shore waters of Lake Michigan south of North Point Lighthouse to the Illinois border during the evening.

### WISCONSIN, Southeast

#### (WI-Z052) SHEBOYGAN, (WI-Z060) OZAUKEE

10/19/11 16:00 CST	4K	Strong Wind (MAX 46 kt)
10/20/11 08:30 CST	0	

Rapidly developing low pressure moved across western Ohio and southeast Lower Michigan during the overnight period of October 19th and morning of October 20th. An associated strong pressure gradient produced strong gusty north to northeast winds over Sheboygan and Ozaukee Counties. Wind gusts reached 40 to 53 mph near the Lake Michigan shore. The persistent strong winds downed weak trees and tree limbs which then snapped power-lines, causing scattered power outages.

## Storm Data and Unusual Weather Phenomena - October 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>(WI-Z059) WASHINGTON, (WI-Z065) WAUKESHA, (WI-Z070) WALWORTH</b>				
	10/19/11 16:00 CST		6K	Strong Wind (MAX 39 kt)
	10/19/11 19:53 CST		0	
Rapidly developing low pressure moved across western Ohio and southeast Lower Michigan during the overnight period of October 19th and morning of October 20th. An associated strong pressure gradient produced strong gusty north to northeast winds over Washington, Waukesha and Walworth Counties. Sustained winds reached 30 mph, with estimated gusts up to 45 mph. The persistent strong winds downed weak trees and tree limbs which then snapped power-lines, causing scattered power outages.				
<b>(WI-Z066) MILWAUKEE, (WI-Z071) RACINE, (WI-Z072) KENOSHA</b>				
	10/19/11 17:00 CST		35K	High Wind (MAX 63 kt)
	10/20/11 02:45 CST		0	
Rapidly developing low pressure moved across western Ohio and southeast Lower Michigan during the overnight period of October 19th and morning of October 20th. An associated strong pressure gradient and unstable conditions over the relatively warmer waters of Lake Michigan allowed strong gusty north to northeast winds to mix down to the lake surface and push inland from Milwaukee south to the Illinois border. Wind gusts reached 50 to 70 mph along the lake shore...and up to 51 mph inland. In downtown Milwaukee, wind and debris broke a few windows in the U.S. Bank tower. Elsewhere...some weak trees were uprooted and there were many reports of broken tree branches. This tree debris damaged at least a couple homes and resulted in scattered power outages as power-lines came down. The strong winds and high waves caused extensive damage to several boats and docks at the South Shore Yacht Club in Milwaukee. Refer to the separate Marine Strong Wind event within Storm Data for details.				

## Storm Data and Unusual Weather Phenomena - November 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>LAKE MICHIGAN</b>				

### WIND PT LT WI TO WINTHROP HBR IL COUNTY --- 1.2 ENE KENOSHA [42.59, -87.81]

11/02/11 20:20 CST	0.10K	Marine Strong Wind (MG 41 kt)
11/03/11 11:40 CST	0	Source: C-MAN Station

Peak wind gust of 41 knots at 650 am CDT. Nearly continuous period of wind gusts 34 to 41 knots from 3 am CDT to 1240 pm CDT. Highest prevailing winds 34 knots at 720 am CDT. Wind gusts began reaching 34 knots or greater at 920 pm CDT on November 2nd.

### NORTH PT LT TO WIND PT WI COUNTY --- 3.5 SE NORTH POINT LTHOUSE [43.05, -87.88]

11/03/11 07:00 CST	0.10K	Marine Strong Wind (MG 35 kt)
11/03/11 09:00 CST	0	Source: C-MAN Station

Frequent gusts 34 - 35 knots from 800 am CDT to 10 am CDT.

Strengthening low pressure over the central Mississippi Valley region resulted in a tightening pressure gradient over southern Lake Michigan during the afternoon and evening of Wednesday, November 2nd. In addition, unstable conditions over Lake Michigan contributed to strong gusty winds mixing down to the lake surface Wednesday night into Thursday morning, November 3rd. The strongest winds were south of Wind Point, where continuous gusts reached gale force for a nine hour period from 3 am CDT to 1240 pm CDT Thursday, November 3rd.

## WISCONSIN, Southeast

### (WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z056) SAUK, (WI-Z057) COLUMBIA, (WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z067) LAFAYETTE

11/09/11 07:00 CST	0	Winter Weather
11/09/11 15:00 CST	0	

Surface low pressure, tracking from northern Missouri across extreme northeast Illinois to northern Lower Michigan, was accompanied by a strong upper-level disturbance moving across the western Great Lakes region. These features combined with a favorable thermal profile to produce 3 to 6 inches of heavy, wet snow across northwest portions of South Central Wisconsin during the morning and early afternoon hours of November 9th. Power lines and tree limbs snapped under the weight of the heavy snow that had collected on them. Snowfall totals for the event included La Valle with 7.2 inches; Reedsburg with 6.4 inches; Baraboo with 6 inches; and Mineral Point with 5.5 inches of snow. The 7-inch amount was isolated and therefore prevented this event from being entered as a winter storm. In addition to the snow, the tight pressure gradient around the low produced sustained northeast to north winds of 15 to 25 mph, with gusts of 35 to 45 mph, reducing visibilities and adding to travel difficulties.

### (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z069) ROCK, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA

11/13/11 13:30 CST	6K	Strong Wind (MAX 43 kt)
11/13/11 17:00 CST	0	

A strong low-level jet of 50 to 60 knots, ahead of a short wave trough approaching from the Central Plains, combined with steep lapse rates from the surface up to 800 mb to mix down strong wind gusts over Southeast Wisconsin during the afternoon of November 13th. Sustained winds of 30 mph, with gusts between 45 and 55 mph were measured over the southeast corner of the state. The highest reported gust was 54 mph (43 knots) in Kenosha. The strong winds snapped small tree branches and knocked down power lines.

### (WI-Z052) SHEBOYGAN, (WI-Z060) OZAUKEE, (WI-Z066) MILWAUKEE, (WI-Z071) RACINE, (WI-Z072) KENOSHA

11/29/11 06:00 CST	5K	Strong Wind (MAX 49 kt)
11/29/11 18:00 CST	0	

Strong low pressure tracked from the Ohio River Valley into the eastern Great Lakes with a tight pressure gradient developing over far eastern Wisconsin on November 29th. Strong north to northeast winds flowing over the low-friction surface of Lake Michigan allowed sustained winds to reach 30 to 35 mph, with wind gusts between 45 and 55 mph, to affect near shore locations from Sheboygan to Kenosha. The strongest wind gust was reported at the lake shore observation site near the Kenosha Harbor with a 55 mph (48 knot) wind gust, with a 53 mph (46 knot) gust at the John H. Batten Airport in Racine.

## Storm Data and Unusual Weather Phenomena - December 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>WISCONSIN, Southeast</b>				
(WI-Z046) MARQUETTE, (WI-Z047) GREEN LAKE, (WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z057) COLUMBIA, (WI-Z058) DODGE, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z065) WAUKESHA, (WI-Z066) MILWAUKEE, (WI-Z070) WALWORTH, (WI-Z071) RACINE, (WI-Z072) KENOSHA				
	12/29/11 05:00 CST		0	Winter Weather
	12/29/11 09:00 CST		0	

A band of light precipitation...a mix of light rain and snow...driven by warm air advection and mid-level frontogenesis ahead of a short wave trough moved across southern Wisconsin during the early morning hours of December 29th. With surface temperatures below freezing and the loss of ice crystals for snow formation as upper levels dried out...the precipitation changed over to freezing drizzle and light freezing rain over a good portion of Southeast Wisconsin and parts of South Central Wisconsin. The freezing rain and freezing drizzle coated roads, sidewalks and outdoor structures with a thin layer of ice, affecting areas mainly along and northeast of a Wisconsin Dells, Madison to Lake Geneva line. The icy conditions led to numerous vehicle accidents, with many spin-outs and a few roll-over accidents. A man was killed north of the city of Jefferson when he stopped to assist another motorist involved in an accident on the STH 26 by-pass bridge, slipped off the bridge and fell into the Rock River. A semi-trailer truck jack-knifed on westbound Interstate 94 near STH 18 in Waukesha County, blocking two of the three westbound lanes during the morning rush hour.